

# **HIV** *Prevention Among **DRUG USERS***

*A Resource Book for  
Community Planners  
& Program Managers*

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# ***HIV Prevention Among Drug Users:***

A Resource Book for  
Community Planners and Program Managers



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on HIV Prevention Among Drug Users**
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# INTRODUCTION

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## The Need for a Resource Book on HIV Prevention Among Drug Users

Drug use is a complex health and social problem that affects all segments of American society. How to respond to this problem continues to be at the center of national and local debates. Further complicating the issue is the rapid rise in HIV infection reported among drug users and their sex partners and children. The proportion of AIDS cases in the United States attributed to injection drug use, for example, has steadily increased from 12 percent of cases reported in 1981 to 32 percent of cases reported between July 1995 through June 1996 (CDC, 1996).

Through June 1996, AIDS cases related to injection drug use accounted for fully one-third of all AIDS cases reported in the US to date, with women, children, and minorities disproportionately affected (CDC, 1996):

- *46 percent of women with AIDS had injected illicit drugs;*
- *18 percent of women reported with AIDS are sex partners of IDUs;*
- *54 percent of infants reported with AIDS are born to mothers who injected drugs or who are sex partners of male IDUs; and*
- *36 percent of all male African Americans reported with AIDS and 37 percent of all male Hispanics reported with AIDS are IDUs.*

Clearly, HIV prevention efforts must focus on drug injection practices. At the same time, however, a focus solely on drug injection practices is not adequate to prevent the further spread of HIV. Sexual risks associated with drug use, both injection and non-injection, are critical components of the rise in HIV infection.

Recent estimates suggest that the HIV/AIDS epidemic in the US is currently being driven by subepidemics in three groups (Holmberg, 1996):

- *injection drug users and their sex partners and children*
- *heterosexual women who use crack*
- *young and minority men who have sex with men (MSM)*

Of these three subepidemics, two are directly associated with drug use and underscore the importance of drug use and sexual behaviors to the spread of HIV. In addition, there is some evidence that the third subepidemic is associated with drug

use. Among MSM, non-injection drug use (e.g., current or past heavy alcohol use, and current use of stimulants, hallucinogens, and inhalents) has shown to be associated with higher-risk sexual behavior (Woody et al., 1996) .

In the past, HIV prevention efforts often focused on either the injection drug-related or the sexually-related risk behaviors of individuals, neglecting both the interrelationships among these behaviors and the social context in which they occur. The association between non-injection drug use and sexually-related risk behaviors has also been ignored. Now, however, those involved in efforts to contain the spread of HIV infection in drug users acknowledge a pressing need to focus on both drug-related (injection and non-injection) and sexually-related risk behaviors.

Developing and conducting programs to modify HIV risk behaviors related to drug use and to sustain changes in behavior present significant challenges. Addiction, poverty, homelessness, crime, and violence are only a few of the social conditions that may affect a drug user's ability to initiate and maintain risk reduction behaviors related to drug use, sexual practices, and HIV transmission.

Another significant challenge to the design, development, and implementation of effective HIV prevention programs among drug users is the complex social and political issues that surround such programs. Societal attitudes vary on the ways to address sensitive issues such as drug use and sexual risk behaviors. Supporters of HIV prevention programs based on drug use abstinence, for example, fear that anything less might send the message that drug use is acceptable and could result in an increase in use. Other prevention advocates believe that lowering the risks related to drug use is a realistic component to contain the continued spread of HIV, considering the difficulties encountered in stopping drug use, the high rates of relapse after treatment, and the lack of available, publicly-funded drug treatment.

HIV Prevention Community Planning Groups and other HIV prevention planners and program managers can make a significant contribution to reducing the spread of HIV by supporting comprehensive, community-based programs that address drug use as well as sexual behaviors, and that pay attention to the social conditions under which these behaviors occur. Recent research has shown that behavior change is occurring. With properly designed interventions, drug users can make the changes necessary to reduce their risk of HIV infection.

Community planning for HIV prevention is a decision-making process involving broad-based, active involvement of persons with a wide range of viewpoints. Differences in background, perspective, and experience are essential and valued (AED, 1994). Prevention planners and program managers must include both HIV

and substance abuse experts as well as community representatives in their efforts, and must have access to the knowledge gained through behavioral and social science research on the theoretical foundations and elements of effective interventions. *HIV Prevention Among Drug Users: A Resource Book for Community Planners and Program Managers* (referred to in this document as “the *HPDU Resource Book*”) is intended to support the need of prevention planners and program managers to learn about and understand the critical issues involved in drug use, sexual behavior, HIV transmission, and their interrelationships. It is only through such understanding that wise decisions can be made about program priorities and design.

## Audience and Purpose

The *HPDU Resource Book* is designed to be used by HIV prevention planners and program managers involved in the community planning process and other community-based prevention initiatives for drug users and their sex partners. Other potential readers include staff of:

- *state and local drug and alcohol agencies*
- *state and local correctional systems*
- *local, regional, or national non-governmental organizations*

It was developed in response to needs identified by those directly involved in HIV prevention planning. A group of consultants from national and local organizations, research institutions, health departments, and community-based programs provided early guidance in determining the design of the book and also provided feedback at key points in its development. Specifically, the *HPDU Resource Book* is intended to increase the reader’s understanding of:

- *drug use and its effects*
- *drug use, sexual behavior, and HIV risk*
- *social and behavioral theory and its use in selecting and designing effective HIV prevention interventions in drug-using populations*
- *public policy and HIV prevention programs for drug users*
- *resources for HIV prevention planners and program managers related to HIV prevention in drug-using populations*

# Organization of the *HPDU Resource Book*

The *HPDU Resource Book* is organized into five major PARTS. Each PART focuses on a key area related to HIV prevention among drug users:

**PART 1: Drug Use and Its Effects** examines the complex nature, consequences, and treatment of drug use, abuse, and dependence. Specific topics include:

- major categories of drugs linked to HIV risk and their effects
- patterns of drug use in the United States
- definition and characteristics of drug use, abuse, and dependence
- key components of the drug treatment system
- sources of national, state, and local data on drug use

**PART 2: Drug Use, Sexual Behavior, and HIV Risk** explores the link between drug use, sexual behavior, and HIV transmission. Specific topics include:

- drug-using practices, sexual behaviors, and the social context of drug use, and how these factors influence risk for HIV infection
- characteristics of special groups of drug users who are heavily affected by the HIV epidemic
- sources of national, state, and local data on trends in transmission of HIV among drug users

**PART 3: Social and Behavioral Interventions** addresses theoretical and practical aspects of planning HIV prevention programs among drug users. Specific topics include:

- the use of social and behavioral theory in the design and implementation of effective HIV prevention interventions
- an approach to systematically deciding HIV prevention interventions
- components of effective HIV prevention programs
- results of social and behavioral research on intervention effectiveness

**PART 4: Public Policy Issues** looks at several key public policy issues associated with HIV and drug use from a national, state, local, and agency perspective. Specific topics include:

- community attitudes and beliefs
- laws, regulations, and practices
- agency policies and practices

**PART 5: Resources** offers information on an array of federal, national, state, and other programs that provide information, materials, and technical assistance services related to HIV prevention among drug users. Specific resources described include:

- national clearinghouses on HIV and drug use
- HIV and drug use information resources from federal agencies and national and state level non-governmental organizations
- publication ordering information

In addition to the five PARTS, the *HPDU Resource Book* contains five APPENDICES:

**APPENDIX A** contains summaries of individual evaluation studies conducted on successful interventions with various drug-using populations.

**APPENDIX B** contains summaries of resources that address behavioral theories and research on HIV prevention interventions with drug users.

**APPENDIX C** is a glossary containing terms and acronyms used in the *HPDU Resource Book*.

**APPENDIX D** is a bibliography containing all of the references cited in the document as well as other source materials used in its preparation.

**APPENDIX E** is a list of the *HPDU Resource Book* Consultant Panel.

Although comprehensive in scope, the *HPDU Resource Book* is meant to be only one component of an ongoing effort to assist state and local HIV prevention planners and program managers. These individuals must address the specific issues and challenges in their own communities. Often, specific, local information will be needed. PART 5 provides various sources for further information and materials. PARTS 1 and 2 also include information on sources of local data on drug use and HIV infection.



# 1

## DRUG USE AND ITS EFFECTS

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### **1-2    Types of Drugs and Their Effects**

1-2    Major Types of Drugs Linked to HIV Risk

1-3    The Range of Drug-Using Behaviors

1-7    Major Patterns and Trends in Drug Use

### **1-8    Drug Use, Abuse, and Dependence**

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# DRUG USE AND ITS EFFECTS

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Drug use is a complex health and social problem that affects all segments of American society. How to respond to this problem continues to be at the center of national and local debates. Further complicating the issue is the rapid rise in HIV infection reported over the past decade among drug users and their sex partners and children. In addition to understanding drug use and its effects, those involved in planning and developing HIV prevention programs must be familiar with the nature and extent of local drug use patterns and trends, and must also be sensitive to community attitudes and opinions that can influence the design and implementation of HIV interventions for the population.

PART 1 of the *HPDU Resource Book* focuses on basic information about drug use and its effects. Given the importance of drug use in the transmission of HIV, this information is intended to make it easier to prioritize, develop, implement, and support realistic and targeted HIV prevention programs.

Specifically, PART 1 will help HIV prevention planners and program managers increase their knowledge of:

- *major categories of drugs and their effects*
- *various patterns of drug use*
- *the definition and characteristics of drug use, abuse and dependence*
- *key components of the drug treatment system*
- *sources of national and local data on drug use*

## Types of Drugs Used and Their Effects

### Major Types of Drugs Linked to HIV Risk

Drugs are commonly categorized into major types, based on their most prominent effects. “Opiates,” such as heroin, and “stimulants,” such as cocaine and crack, are two major drug types whose use have been closely linked to HIV risks. For example, crack is linked to HIV transmission by the risky sexual behaviors associated with its use. Another HIV risk-related behavior—needle sharing, or multiperson use of syringes—is directly related to how frequently a drug like heroine or cocaine is injected, and whether a person has access to sterile injection equipment. Becoming familiar with the unique features of these drugs and their effects will help prioritize and support effective HIV prevention programs that are targeted to those

who use them. Exhibit A provides key information about opiates and stimulants, including the likelihood of developing dependence on them, the manner in which they are used, their physical and behavioral effects, and common symptoms that occur when use stops. However, it is important to keep in mind that drug use experiences often vary among individuals. Care should be taken not to generalize and assume that all cocaine users, for example, react to cocaine in the same manner.

## The Range of Drug-Using Behaviors

Drug users commonly use more than one drug. This is often referred to as “polydrug” use. For instance, many injection drug users (IDUs) often use a combination of alcohol, marijuana, cigarettes, and crack in addition to the drug they inject. Heroin users often inject a combination of heroin and cocaine, known as a “speedball.” Those who inject cocaine sometimes use heroin to alleviate the agitating effects of cocaine.

The most common reasons for multiple drug use include:

- *the desire to experience a new or different type of drug-induced effect, such as that produced when heroin and cocaine are combined to make a “speedball”*
- *the need to “self-medicate,” that is to balance the effects of a particular drug (e.g., using alcohol to reduce the agitation brought on by the use of a stimulant like methamphetamine)*
- *the need to offset the symptoms caused by ending the use of a particular drug, such as the nausea and tremors resulting when heroin use is stopped*
- *substitution of another drug when the preferred drug of choice is either difficult to obtain or too costly*
- *the desire to experiment with a variety of drugs*

Individuals’ drug-using behaviors also can vary in intensity and frequency. Some individuals may begin to use drugs and then rapidly progress to chronic use, while others may start and stop their use with or without the assistance of drug treatment. This fluctuation in drug-using behaviors among people is an important concept to consider when prioritizing or designing HIV intervention programs. For example, a person with a long history of chronic heroin injection may not benefit from an HIV intervention that is abstinence-based. Initially, this person might fare better if offered counseling and education related to needle and syringe disinfection, ways to access sterile needles and other injection equipment, and referral to drug treatment.

Many factors contribute to these variations in drug-using behaviors. For example, drugs such as crack may cause someone with little or no history of prior drug use

to quickly become dependent and begin to experience related social problems. However, frequency of drug use is not always directly related to the extent of drug-related problems encountered. A daily heroin user, for example, may be able to support his or her habit and maintain a job, while an occasional cocaine user may suffer numerous personal problems, including job loss and family disruption. Case Example 1.1 provides several personal accounts of various kinds of drug-using behaviors and some associated consequences.

Use of multiple drugs and the range of drug-using behaviors demonstrate the individualized character of drug use. This directly affects those who prioritize programs for drug users and who work with clients. Ultimately, programs for drug treatment, HIV prevention, or to support other needs must respond to individual drug users' behaviors and risks.

### Case Example 1.1

## Individual Accounts of Drug-Using Behaviors and Associated Consequences

"I went to jail for prostitution...trying to get money for my drugs."  
*20-year-old male from Seattle*

"Every time I went into treatment, I thought it would be my last time, but I always started using again. I just couldn't help it."  
*44-year-old artist from San Francisco*

"The police came and took away my children and put them in foster homes until I went to treatment."  
*25-year-old mother from Nashville*

"My daughter used heroin for ten years without losing her job, and then she died of an overdose. Now I'm raising her kids."  
*68-year-old grandmother from Southside Chicago*

"When I was smoking crack, there were no rules. I even stole from my family."  
*17-year-old Miami woman*

"I lost my job, my house, and my marriage after becoming addicted to cocaine."  
*38-year-old accountant from San Juan*

*Source: Client interviews submitted by HPDU Resource Book subject matter experts, 1995.*

# Heroin, Cocaine, and Crack:

## Characteristics and Effects

### Heroin—Characteristics and Effects

*"If you shoot some heroin you are high, and you just kind of sit down and mind your own business. If you shoot some cocaine... you have a desire for more, but it's basically something that will pass. But with rock... the craving for more is unbelievable."*

*"Heroin is so intense... you can feel it move through your body and hit your brain."*

*"After I became addicted to heroin, I began to use it just to not get sick... I just couldn't stand going through withdrawal again."*

- Made from morphine, which is obtained from the opium poppy.
- High risk of developing physical and psychological dependence.
- Can be administered by injection, sniffing (snorting), or smoking.
- Commonly injected about three times a day (every eight hours).
- Effects last from three to six hours.
- Typical behaviors under the influence include sleepiness ("nodding") after injection, sedate behavior, docile appearance and shuffling gait.
- Acute withdrawal symptoms begin within 8 to 12 hours after last dose.
- Withdrawal is severe, although generally not life-threatening.
- Withdrawal symptoms include severe gastrointestinal distress, muscle cramping, and other flu-like symptoms. Heroin users call this withdrawal being "drug sick." When these withdrawal symptoms are severe enough, individuals addicted to heroin want to obtain and inject the drug as rapidly as possible, sometimes without concern for possible HIV risks.
- High risk of HIV transmission when administered by previously used, blood-contaminated needle and syringe.

### Cocaine—Characteristics and Effects

*"The immediate rush from cocaine was intense. I was powerful. But then I crashed and all I wanted was some more."*

*"I was invincible with cocaine... until I came down and the depression hit."*

- The most potent of the stimulants.
- High risk of developing physical and psychological dependence.
- Can be administered by smoking, or "freebasing" (onset of effect: less than 10 seconds), injection (onset of effect: 15-20 seconds), or snorting (onset of effect: 2-4 minutes).
- Effects last from 10 to 40 minutes, depending on purity and route of administration.
- Typical behaviors under the influence include hyperactivity, elation, increased energy and alertness, and increased sexual activity. The user may feel invincible, and is often difficult to deal with and quarrelsome.
- Withdrawal symptoms occur within several hours after last use and result in agitation and depression.
- High risk of HIV transmission through multiple injections when administered by previously used, blood-contaminated needles and syringes, and through unprotected, prolonged sexual intercourse.
- Sold in ready-to-use crystals that, when heated and smoked, cause a "crackling" sound.

## Crack—Characteristics and Effects

*"After my first high on crack, I knew I needed to find that same feeling again."*

- Crack is prepared by heating cocaine, water, and bicarbonate (baking soda). This treatment chemically changes cocaine into a smokable form. Cost is lower than freebase cocaine (also smoked), making it more accessible.
- Use is now widespread in some urban and rural areas among both women and men.
- Results in an intense "rush" in a matter of seconds.
- Effects are short-lived (a few minutes), resulting in repeated use to achieve the initial rush again and to avoid severe post-cocaine depression.
- Typical behaviors under the influence include intense agitation and erratic activity, mood swings, confusion and disorientation, facial and body twitching ("tweaking"), and preoccupation with obtaining the next dose of crack.
- Dependence on crack is thought to develop more rapidly than dependence on heroin or other forms of cocaine.
- Crack sale and use can spread rapidly with devastating effects, including an increase in related violence, crime, and the exploitation of users, especially women.
- Crack use is associated with increased sexual activity, often performed with little regard for HIV risks. As with cocaine use, male sexual performance is often affected due to delayed ejaculation, and results in prolonged intercourse with increased risk of genital injury and bleeding.

*Sources: Ratner, 1993; client interviews submitted by HPDU Resource Book subject matter experts; and interviews conducted with drug users in drug treatment programs in the metropolitan Washington DC area, 1995.*

# Major Patterns and Trends in Drug Use

In addition to an understanding of drug-use behaviors on an individual level, a thorough understanding of the patterns and trends in drug use within communities will support more effective approaches to HIV prevention. These more general patterns and trends result from a variety of factors, such as changes in supply and demand or changes in the drugs themselves. The following examples illustrate:

• **Changes in Supply and Demand.** Crack cocaine was essentially unknown until the mid-1980s. From the mid-1980s through the early 1990s, however, crack was introduced into local drug markets of American cities and rapidly became one of the dominant forms of drug use (Miller et al., 1990).

• **Changes in Drug Quality.** In the early 1990s, there was an increase in the purity of heroin marketed in the U.S. The most important consequence of this trend is that the higher purity has allowed heroin-dependent drug users to consume it by sniffing (also called “snorting”) instead of injecting (Ray et al., 1996). Low-purity heroin usually is injected because it has a relatively limited effect when snorted or smoked. Because snorting does not involve syringes and avoids the possibility of transferring blood during drug injection, it usually reduces the risk of HIV transmission. On the other hand, increased purity has been associated with a rise in emergency room visits and overdoses resulting in death. It is important to note that experience with earlier heroin “epidemics” suggests that many of the current heroin snorters may eventually shift to injecting heroin, particularly if the purity of heroin drops to the levels seen in the early 1980s.

In addition to understanding changes in drug supply and quality, prevention planners and program managers need to recognize regional and local patterns and trends that affect drug use. For example, a new trend that may affect drug use and HIV prevention in the mid-1990s is the increasing use of am-

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## Table 1.1: Regional Patterns and Trends of Drug Use

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*In 1994, the National Institute on Drug Abuse-supported Community Epidemiology Work Group (CEWG), reported the following regional patterns and trends related to drug use in the U.S.:*

- cocaine use, including crack, remains the most common substance on the drug market in Atlanta
- New York City, Newark, Boston, and Chicago report that heroin use is either increasing or, at least, has stabilized at high levels
- while most heroin users are over age 30, cities including Atlanta, Miami, and Chicago report an increase in younger users
- the current purity of heroin in St. Louis is the highest ever seen in the Midwest
- cocaine remains readily available in Denver and its use is increasing in Honolulu
- increasingly, cocaine abusers in Miami are also snorting heroin
- methamphetamine is the most widely used illicit drug in San Diego

*Source: Johnson, Bassin, and Shaw, 1995, vol. II.*

phetamines in Western states and the introduction of amphetamines into the Midwest and South, where amphetamine use was previously uncommon (Johnson, Bassin, and Shaw, Inc., 1995, vol. II ). Table 1.1 illustrates some of the variation in drug use patterns in the United States. This variation reinforces the need to incorporate local data into the prevention planning process.<sup>1</sup>

## Drug Use, Abuse, and Dependence

As noted previously, drug use encompasses a wide range of substance-related behaviors that have varying effects on the individual and his or her HIV risk exposure. Understanding the nature of drug use, abuse, and dependence can help HIV prevention planners and program managers better target high-risk drug users and support HIV prevention programs that accommodate the recurrent and variable nature of the drug use problem. Such an understanding can also provide insight into the ways users are viewed and treated by service providers and by the community in general. Service providers' orientation can have a powerful impact on how drug users are treated in prevention programs, and the community's view can strongly affect the response to and acceptance of a program designed for drug users.<sup>2</sup>

In a medical orientation, drug-using behaviors are viewed as symptoms of a chronic medical disorder that can be treated but not cured. Drug users are not blamed for their use. Rather, as with other chronic diseases, they are helped to manage their illness. In this orientation, substance-related disorders are classified into two broad categories—substance abuse and substance dependence—that form a continuum. Abuse may result in specific recurrent personal and social problems, while dependence results in an established pattern of consequences. Exhibit B presents the medical criteria by which each of these disorders is recognized and diagnosed. The criteria give a clear idea of the range of behaviors, their potential consequences, and environmental implications. All of these can affect prevention strategies and interventions. However, not everyone who uses drugs develops substance-related disorders. Why this is so is still unclear, although researchers have identified a number of biological, psychological, and environmental factors that may have a role.

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1. Developing an accurate picture of local drug use is discussed in greater detail later in PART 1 in the section entitled "Estimating the Extent of Local Drug Use."

2. These orientations and attitudes are discussed more fully in PART 4: PUBLIC POLICY ISSUES.



# Definitions of Substance Abuse and Substance Dependence

## Substance Abuse

*For an individual to be diagnosed with substance abuse, s/he must have experienced one (or more) of the following in the same 12-month period:*

- Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences, poor work performance, neglect of children or household).
- Recurrent substance use in situations in which it is physically hazardous (e.g., driving a car or operating machine while impaired).
- Recurrent substance-related legal problems (e.g., substance use-related arrests).
- Continued substance use despite having persistent or recurrent social or interpersonal problems caused by effects of substance (e.g., arguments, physical fights).

## Substance Dependence

*For an individual to be diagnosed with substance dependence, s/he must have experienced three (or more) of the following in the same 12-month period:*

- Tolerance, defined as either: a) a need for markedly increased amounts of the substance to achieve the desired effect; or b) a markedly reduced effect with the continued use of the same amount of the substance. A cocaine user experiences drug tolerance when s/he seeks more cocaine to recapture the "high" initially derived from smaller amounts (Ray et al., 1996).
- Withdrawal, defined as: a) the occurrence of a withdrawal syndrome when the substance is not used or there is a reduction of use after heavy, prolonged use (e.g., with crack, becoming irritable and/or depressed; with heroin, becoming shaky and/or nauseous); b) the use of the same or related substance to relieve or avoid withdrawal symptoms.
- The substance is often taken in larger amounts or over a longer period than was intended.
- There is a persistent desire or unsuccessful efforts to cut down or control substance use.
- A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors, driving long distances), use the substance (e.g., chain-smoking), or recover from its effects.
- Important social, occupational, or recreational activities are given up or reduced because of substance use.
- The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused by the substance (e.g., continued alcohol consumption despite a known ulcer).

*Source: American Psychiatric Association, 1994.*

# Substance Dependence as a Chronic, Relapsing Disorder

Drug dependence is considered *chronic* because there is no cure. An integral element of this disorder is a common pattern of remission followed by relapse. Many of those who are dependent stop using drugs but later resume their use and continue to have alternating periods of remission and relapse.

Many persons dependent on drugs want to stop or control their substance use. Those who are in drug treatment programs or who, on their own, are successfully abstaining from drug use are said to be “in remission” or “in recovery.” Recovery from drug use is a delicate balancing act. Most initial attempts to stop drug use are unsuccessful, and individuals in recovery may relapse one or more times, particularly early in the treatment process. As a result of high relapse rates among those in drug treatment, relapse prevention strategies have become an important component of many drug treatment programs. These strategies involve helping the patient identify personal “triggers”—situations, locations, or objects—that prompt a desire to resume drug use. Helping a person “talk through” or learn how to manage this craving prompted by a trigger may be an effective technique in reducing relapse potential.

## Substance Abuse and HIV Risk

Persons who use, abuse, or are dependent on drugs often engage in behaviors, including HIV risk behaviors, that can negatively affect their health. This may be caused by the effects of the substance itself. For example, people who use or abuse drugs or alcohol sometimes report being so high or intoxicated that they forget to use a condom. Or, risk behavior may result from the desire to avoid withdrawal symptoms. An individual who is dependent on heroin may choose to share a syringe in order to avoid the painful effects of withdrawal. In both of these examples, the individuals involved may be well educated about HIV transmission and deeply concerned about the risks of HIV infection and ways to protect themselves. Yet, the effects of the substance override this knowledge and place them at risk. Even given these powerful effects, some studies show that drug users will change their behaviors to reduce their risk of HIV and other health problems. For example, when heroin purity increases, users switch from injecting to snorting the drug. One reason given for this change is the fear of needle-acquired HIV infection (Johnson, Bassin, and Shaw, Inc., 1995, vol. I).

It is important that prevention planners and program managers understand the powerful effects of drug dependence, particularly as they relate to HIV risk behav-

iors, and accept the fact that knowledge alone will not protect a community from the transmission of HIV. This has important implications for the design, type, number, and compatibility of programs, and the frequency and number of support or “booster” sessions needed to maintain behavior change that lowers HIV risks. It also has implications regarding the need to increase the availability of prevention supplies, such as bleach kits, sterile syringes, and condoms, so that they are easily accessed at the times and in the locations where individuals are most vulnerable.

## Drug Treatment

Drug dependence is identified through behavioral and physiological symptoms and best treated by a multidisciplinary approach. Outcomes are determined, in part, by a number of interrelated factors, including: (1) characteristics of the individuals seeking treatment, including their level of “readiness for treatment”; (2) the treatment approach used and services provided; and (3) elements that affect the individual’s adjustment to his or her environment once treatment is completed. No single treatment approach is effective for all persons with drug problems. An integrated system of treatment programs, containing a full range of treatment types, intensities, and cultural competencies is essential (Selwyn et al., 1995).

The last decade of evaluation research on drug treatment has demonstrated its overall effectiveness (Gerstein et al., 1990; Pickens et al., 1991). For example, a large pre- and post- treatment comparison study of 649 adult alcohol-, cocaine-, and opiate-dependent patients admitted to 22 public and private treatment programs showed participant improvement in seven areas: alcohol and drug use as well as medical, legal, employment, family/social, and psychiatric problems (McLellan et al., 1994). Other key studies evaluating alcohol treatments (Moos, 1974; Moos et al., 1990), drug abuse treatments (Hubbard et al., 1989; Simpson et al., 1980), therapeutic community treatment (DeLeon, 1984), and methadone maintenance treatments (Anglin et al., 1989; Ball et al., 1988; Novick et al., 1990) also have shown significant and pervasive changes among substance-dependent patients following standard treatments. A review of the data on the effectiveness of drug treatment can help prevention planners and program managers decide which HIV prevention interventions would best serve drug users and their sex partners.

## Drug Treatment Services

Some people who have become dependent on drugs are able to stop using on their own or with the assistance of family, friends, church, or members of their community.

Many more, however, need help from specialized counseling, support, and/or medical therapies. Drug abuse treatment programs differ in their philosophy, setting, duration, and approach. Most programs use some type of “service continuum” based on the concept that treatment, like substance-related disorders and recovery, is an ongoing process.

Drug treatment programs provide an important opportunity to conduct HIV prevention with drug users. Understanding the unique structure, approach, and philosophy of drug treatment services within a community allows prevention planners and program managers to support collaborative efforts with programs that have built-in access to drug-users and their sex partners. In addition, drug treatment providers can become key allies in supporting community-based HIV prevention programs for drug users. Drug users benefit from services that address both HIV and drug-related risks.

According to the National Academy of Sciences, an estimated 5.5 million people need drug treatment, although it is available for only a fraction of them (Gerstein et al., 1990). The services that are available differ in their approaches and components. They can be divided into six major categories of programs: (1) detoxification; (2) inpatient; (3) therapeutic communities; (4) outpatient; (5) methadone maintenance; and (6) self-help.

**Detoxification programs.** Detoxification (“detox”) programs are medically supervised programs in which drug users are weaned from their physical dependence on drugs, such as heroin, cocaine, and alcohol. Although there are a few outpatient detox programs, most detoxification occurs at inpatient facilities where a participant’s progress can be monitored carefully.

In most detox programs, medication is used to lessen the severity of withdrawal symptoms. For users of heroin and other opiates, oral methadone (a synthetic opiate), is used to limit the discomforts associated with the abrupt discontinuation of a drug. The length of stay in a detox program often hinges upon which drug the patient is addicted to, which detoxification approach is used, and any restrictions established by health insurance plans.

**Inpatient programs.** Housed in hospitals or specialized treatment facilities away from the user’s natural home environment, these programs provide drug users in need of intensive treatment with continuous care and supervision.

**Therapeutic communities (TCs).** TCs are peer-based, residential treatment settings designed to help clients alter, modify, and re-learn behaviors. The length of treatment varies from 18 to 36 months. Many therapeutic communities offer a wide variety of educational, medical, legal, social, and psychological counseling ser-

vices, all of which are coordinated under the auspices of a basic self-help model. The TC approach is applied in a variety of settings, including community-based residences, hospitals, homeless shelters, and prisons. Most TCs have specific rules and norms that apply to both clients and staff. Exhibit C on the next page describes some basic components of TC programs.

**Outpatient programs.** These programs serve about half of all those in treatment for drug and alcohol problems. Outpatient care is the least intensive form of treatment, and has fewer restrictions than inpatient or residential programs. This type of treatment is most suitable for people who are employed, have a stable and supportive social and family environment, honestly acknowledge their problem with drugs, and sincerely desire help in stopping their drug use. Outpatient program services range from drop-in centers to individual and group counseling sessions. Some outpatient programs provide educational, medical, psychological, and rehabilitative services. Patients receiving outpatient treatment must be highly motivated, particularly if environmental factors or personal relationships are conducive to triggering a relapse.

**Methadone maintenance treatment programs.** These programs provide outpatient services for those addicted to opiates, such as heroin, by offering methadone in combination with counseling. Dosages of methadone range from approximately 20 milligrams to more than 100 milligrams daily. A daily dose, which has a “half-life” of one to two days, stabilizes the patient until it is time to receive the next dose. At a sufficiently high dosage, methadone blocks the euphoric “rush” caused by heroin and other opiates, although it has no inhibitory effect on stimulants, such as cocaine.

Methadone maintenance programs have been proven to reduce opiate use, thereby enabling users to lead more productive lives. Some people have regularly taken part in methadone maintenance programs for 10 to 20 years with very good results. Some programs use methadone as one component of a planned course of treatment in which the methadone dosage is progressively reduced to zero. Completion of treatment with methadone usually is followed by on-going counseling designed to help former users remain abstinent.

**Self-help or “12-Step” programs.** The most familiar example of the self-help model is Alcoholics Anonymous (AA). The AA model has been adapted by self-help organizations for drug users such as Narcotics Anonymous (NA) and Cocaine Anonymous (CA). Meetings, fellowship, and mutual support are at the core of all these self-help groups. In a typical meeting, members gather to discuss their past or present problems with alcohol and drugs. They also give testimonials about their application of “the 12-step method” in bringing positive changes to their lives. By

# Basic Components of a Therapeutic Community (TC) Program

<b>Community separateness</b>	Usually housed in a location separate from other programs and drug-related environments.
<b>Community environment</b>	Environment designed and organized to promote a sense of commonality and collective activity.
<b>Community activities</b>	Treatment and services are provided within the context of the peer community and all activities are programmed in groups.
<b>Peers as community members</b>	Individuals who reflect the value and teaching of the TC, demonstrate the expected behavior, and who are viewed as role models.
<b>Staff as community members</b>	Staff are a mix of recovering professionals and other professionals who must be integrated through cross-training in the program and community approach.
<b>Structured day</b>	Each day has a formal schedule of therapeutic and educational activities with fixed times, routine procedures, and prescribed formats.
<b>Phase format</b>	Individual treatment plans are organized into phases that reflect a developmental view of the change process; emphasis is on incremental learning at each phase, which moves the individual to the next stage of recovery.
<b>Work as therapy and education</b>	Consistent with the self-help approach, all clients are responsible for the daily management of the facility.
<b>Peer encounter groups</b>	A peer group process is used to increase individual awareness of specific attitudes or behavioral patterns that need modification.
<b>Duration of treatment</b>	Length of individual treatment depends on stage of recovery.
<b>TC concepts</b>	An organized curriculum focused on the TC perspective, particularly its self-help recovery concepts and view of right living.
<b>Maintenance of recovery</b>	Development of relationships and a new social network needed to sustain recovery after treatment.

*Source: DeLeon, 1995.*

sharing their stories and hearing others describe their “powerlessness over the disease of addiction,” participants obtain the support, fellowship, and motivation needed to maintain their recovery.

Self-help meetings provide a much-needed atmosphere of mutual support from others struggling with drug abuse or dependence. Such support can be very helpful, particularly for those in the early phases of recovery. Participants may attend several meetings a week, or as often as once or twice each day. The common goal for all participants of AA, NA, and CA is total abstinence. Typical meetings include celebrations of the “anniversaries” of those who have been “sober” or “clean and serene” for intervals of a month, six months, a year, and each anniversary thereafter.

AA, NA, and CA are member-operated, nonprofit organizations. The organizations themselves arrange for a place to conduct meetings, distribute literature, and provide the structure for the meeting. Although the 12-step programs themselves are not considered “formal” drug treatment programs, they are often major factors in helping drug users control their use of drugs.

## **HIV Prevention and Drug Treatment Programs**

Typically, drug treatment programs are not considered prevention programs—treatment is usually applied when primary prevention fails. In the case of drug abuse treatment however, there is real potential for treatment to achieve primary HIV/AIDS prevention goals, given the close association between drug use and HIV infection. By effectively treating drug use, direct and indirect risks of HIV infection can be reduced.

Data from the past ten years have clearly established an association between participation in treatment and lower risk of HIV infection. For example, an examination of self-reported risk behaviors of IDUs in treatment and out of treatment has shown significantly lower rates of risk behaviors (e.g., drug injection, needle sharing) practiced by drug users who are in treatment (Abdul-Quader et al., 1987; Ball et al., 1991; Caplehorn et al., 1995). These self-reported behavioral differences are consistent with studies of HIV incidence/prevalence and treatment participation, which have shown that participation in treatment programs that use opiate substitution (usually methadone) is associated with lower seropositivity rates (Metzger et al., 1993; Moss et al., 1994; Serpelloni et al., 1994).

In addition to being an effective HIV prevention program, drug treatment programs provide an ideal opportunity to reach drug users and their sex partners with

a variety of HIV prevention interventions over a period of time. As one of the few organized social institutions with access to drug users at risk of HIV infection, treatment programs have in many ways become community-based “staging areas” for risk reduction interventions directed at IDUs (Metzger, 1997). Even though drug users in treatment represent only a minority of active drug users, there is a growing awareness that individuals in treatment provide access to a much larger community of drug users who are not in treatment. This is due to the fact that drug use often takes place in small groups or within social networks of drug users.<sup>3</sup> Several studies have found that drug users currently in treatment are effective peer contacts who can conduct street outreach and disseminate prevention information and materials to their social networks of active drug users (Birkel et al., 1993; Latkin et al., 1996).

There has been much debate, however, as to the nature of HIV prevention programs within drug treatment programs. Many drug treatment program administrators believe that it is the program’s responsibility to educate clients about how to protect themselves from HIV infection, including how to disinfect needles and syringes in the likelihood that the client may relapse during or after treatment. Others argue that risk reduction without abstinence violates the core principles of drug-free treatment and recovery.<sup>4</sup>

Drug treatment program administrators and staff can be valuable sources of expertise and support to prevention planners and program managers. Building these links requires a sensitivity to the various approaches and perspectives of those who work within the drug treatment system. Exchanging ideas and philosophies with drug treatment service providers can help pave the way for a coordinated, streamlined, and cooperative approach to HIV prevention community-wide.

## Estimating the Extent of Local Drug Use

Thus far, PART 1 has given an overview of various types of drugs, the range of drug-using behaviors, the general patterns and trends of drug use, and an under-

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3. The social contexts of drug use are discussed more fully in PART 2: DRUG USE, SEXUAL BEHAVIOR, AND HIV RISK.

4. Issues related to the debate over HIV prevention efforts within drug treatment programs are further discussed in PART 4: PUBLIC POLICY ISSUES.



standing of drug dependence and drug treatment. This provides important background for developing HIV prevention programs for drug users at the local level. In order to develop effective community programs, however, planners and program managers need to have an accurate understanding of local drug-using behaviors, drug-use environments, affected populations, and local patterns and trends.

This information may be difficult to obtain. Traditional survey methods and other techniques that may be used to estimate local drug use have distinct limitations.

For example, some people may not admit to using drugs or will understate their drug use because drug use is illegal and socially unacceptable. In addition, chronic drug users often are not reached by traditional community surveys. Difficulties in accurately estimating the number of people who inject specific drugs, such as heroin, cocaine, and amphetamines, are further compounded because IDUs may use several drugs in combination or may vary their drug-using behaviors over time by switching from one drug or method of use to another (e.g., injecting to snorting).

Because of the difficulties in obtaining exact information on the extent and patterns of drug use in a given community, it is important to gather information on drug use from a variety of sources and combine them to obtain general estimates of the extent and patterns of drug use in the community. Table 1.2 summarizes potential local sources of information on drug use trends and patterns. In combination, they can increase prevention planners' and program managers' understanding of the drug use situation in their community, which in turn, will enhance their ability to support more effective HIV prevention programs for drug users.

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**Table 1.2: Local Resources for Information on Drug Use Trends and Patterns**

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*The following resources may be available to provide local information on drug use trends and patterns:*

**Government Agencies**

- state, city, and county drug treatment and prevention agencies
- state Boards of Education
- criminal justice system
- governor's and mayor's task forces on drug abuse

**Research Institutions**

- university research projects on drug use
- hospital-based research projects on drug use

**Community/Neighborhood Programs Serving Drug Users**

- outreach projects to drug users and youths
- public health clinics
- drug abuse treatment providers

**Libraries**

- literature searches of local drug use reports, surveys, and/or relevant newspaper articles

**National Institute on Drug Abuse (NIDA) - supported Community Epidemiology Work Group**  
(if available in your state)

Each of these sources will present its own opportunities and challenges. When approaching government agencies, such as drug treatment and prevention agencies, boards of education, or the criminal justice system, for example, it is best initially to contact staff who oversee information and data management for the agency. These agencies may have other useful data in addition to data on drug-use trends and patterns, and the information/data management staff will likely be in a good position to bring them to the attention of prevention planners. The criminal justice system may have data on the number of drug-related arrests, what drugs were confiscated in arrests, and high-use neighborhoods and populations. State boards of education contribute information to the CDC-supported Youth Risk Behavior Survey, which collects some drug-use data on a sample of 9-12th grade students.

Prevention planners also can seek relevant data from the community drug treatment programs or public health clinics, with the understanding that their data collection systems are often limited. These data collection systems vary considerably as to their reporting requirements and staff capacity to summarize data in an aggregate way. A priority for many prevention programs and clinics is to gather data on service delivery to report to their funders rather than to gather data on patterns and trends of drug use among their targeted population. When relevant data are not available from programs serving drug users, planners can conduct structured interviews with a representative sample of professional providers.

Research institutions, often university or hospital-based, are another source of relevant data. Research projects related to drug use often are located in departments such as public health, psychiatry, psychology, sociology, anthropology, or social work. If the institution has a research department, staff there often can respond initially or through direct data inquiries to other departments.

Prevention planners also should use public libraries in seeking relevant local data and information. Literature searches on drug use can often identify reports or surveys that have been conducted. In addition, a search of newspaper files can identify articles on drug use and drug use environments.

Another valuable source of information on drug uses is the Community Epidemiology Work Group (CEWG), a National Institute on Drug Abuse (NIDA)-supported network of researchers from 20 major metropolitan areas of the U.S., Canada, and Mexico. The CEWG provides current descriptive and analytical information regarding the nature and patterns of drug abuse, emerging trends, and characteristics of vulnerable populations.<sup>5</sup> Table 1.3 lists the 20 major metropolitan areas surveyed by the CEWG:

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5. PART 5: RESOURCES provides contact information for the CEWG.

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**Table 1.3:**  
**Metropolitan Areas Surveyed by CEWG**

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*The following 20 major metropolitan areas are covered by the data-gathering activities of the Community Epidemiology Work Group:*

Atlanta, GA	New Orleans, LA
Boston, MA	New York, NY
Chicago, IL	Philadelphia, PA
Denver, CO	Phoenix, AZ
Detroit, MI	St. Louis, MO
Honolulu, HI	San Diego, CA
Los Angeles, CA	San Francisco, CA
Miami, FL	Seattle, WA
Minneapolis/St. Paul, MN	Texas
Newark, NJ	Washington, DC

*Source: Johnson, Bassin, and Shaw, 1995, vol. II*

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Finally, planners should not underestimate the value of gaining information about trends and patterns of drug use from drug users themselves. Key informant interviews and focus groups with active drug users or those in treatment can yield information about current practices, drugs of choice, and their availability. These interviews will also provide planners and managers with a more holistic understanding of the lives of drug users. These interviews should be arranged through staff who work in programs for active and inactive users.

# Key Questions for HIV Prevention Planners and Program Managers

The following key questions related to PART 1 may be helpful in guiding prevention planners and program managers to obtain information on how to design, implement, and set priorities among programs for drug users and their sex partners.

- How would you assess the local community's attitude toward drug use?
- Who are the major drug treatment providers in your community and what kinds of services do they provide?
- Do local or state-funded drug treatment programs provide HIV prevention education for their clients and, if so, what do these programs consist of?
- Have local or state drug use surveys or other types of research been conducted within your community to determine the nature and extent of local drug use?
- How might the goals of local drug treatment providers reinforce or conflict with those of HIV prevention efforts?
- How might drug treatment providers be involved in the HIV Prevention Community Planning process?
- How might state and local corrections systems agency representatives be involved in the HIV Prevention Community Planning process?
- How might state and local alcohol and drug agency representatives be involved in the HIV Prevention Community Planning process?
- Is a member of the Community Epidemiology Work Group (CEWG) conducting research in your area?

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# **2 DRUG USE, SEXUAL BEHAVIOR, AND HIV RISK**

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# DRUG USE, SEXUAL BEHAVIOR, AND HIV RISK

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Recent estimates suggest that the HIV/AIDS epidemic in the U.S. is being driven by subepidemics in three groups: (1) injection drug users and their sex partners and children; (2) heterosexual women who use crack; and (3) young and minority men who have sex with men (Holmberg, 1996). Of these three subepidemics, two are directly associated with drug use and underscore the importance of drug use and sexual behaviors to the spread of HIV. In addition, there is some evidence that the third subepidemic also is associated with drug use. Among MSM, non-injection drug use (e.g., current or past heavy alcohol use; current use of stimulants, hallucinogens, and inhalants) (Woody et al., 1996) has been shown to be associated with higher-risk sexual behavior.

Drug users face many opportunities for HIV exposure, infection, and transmission as a result of their drug-using practices and sexual behaviors. In the past, HIV prevention efforts often focused on either the drug-related or the sex-related risk behaviors of individuals, neglecting both the interrelationships among these behaviors and the social context in which they occur. The association between

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**Table 2.1:**  
**High-Risk Practices and Behaviors Among Drug Users**

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## Injection Drug-use Practices\*

### Type of drug injected

- speedball (heroin and cocaine combined; highest correlation with HIV transmission)
- heroin
- cocaine (frequency of injection)

### Sharing of equipment

- direct sharing of syringe
- indirect sharing
  - Sharing water, cooker, or cotton*
  - Using used syringe plunger to stir drug solution*
  - Backloading, frontloading*
  - Recycling used cottons to extract residual drugs*
  - Using unclean rinse water to mix with drug*
  - Using dirty syringe to draw up water or measure shared drugs*
  - Returning a portion of the drug solution to the cooker from a used syringe*
  - Sharing unknowingly (IDU partner or spouse loans out works to another IDU)*
- using crack as well as injecting drugs

non-injection drug use, such as crack cocaine, and sexually related risk behaviors has also been ignored. Now, however, those involved in efforts to contain the spread of HIV infection in drug users acknowledge a pressing need to focus on both drug-related (injection and non-injection) and sexually related risk behaviors.

PART 2 builds on the general information on drug use patterns and behaviors presented in PART 1 by focusing on the interface of HIV, drug use, and sexual behaviors, and by describing the HIV risks incurred by drug-using populations. It provides information to help HIV prevention planners and program managers take into account the multiple risks associated with drug use as well as the social conditions that uniquely influence the frequency and level of such risks.

Specifically, PART 2 will help HIV prevention planners and program managers increase their knowledge of:

- *drug-using practices, sexual behaviors, and the social context of drug use, all of which influence HIV infection risk*
- *special groups of drug users who are most heavily affected by HIV*
- *national, state, and local HIV/AIDS data available to help identify trends in transmission of HIV among drug users*

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**Table 2.1: continued**

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## **Non-injection Drug Practices**

Multiple sexual risk behaviors (see below)

### **Sexual Behaviors**

#### **Unprotected sex**

- receptive anal intercourse
- insertive anal intercourse
- vaginal intercourse
- oral sex

#### **Multiple partners**

#### **Trades of sex, money, and drugs**

#### **Lack of treatment for STDs (especially ulcerative lesions)**

*\*NOTE: These practices are defined and described more fully later in PART 2 in the section entitled "Direct and Indirect Transmission of HIV Risk Through Sharing of Injection Equipment" and in the BOX on "Drug Use Practices and Risk for HIV Transmission."*

# HIV Behavioral Risks Among Drug Users

Drug users face multiple opportunities for HIV exposure through their drug use, sexual, and social behaviors. Understanding these behaviors will allow prevention planners and managers to identify reliable information related to the behaviors, current populations who are at high risk for HIV infection, and populations who are most in need of prevention interventions. Table 2.1 lists these practices and behaviors.

## Injection Drug Use Practices

Injection drug users are the second largest subgroup of persons with AIDS in this country (CDC, 1996). Several factors contribute to the IDU's level of risk. These include the type of drug injected, frequency of injection, availability of sterile injecting equipment, method of preparing the drug for injection, and the location chosen for the process. Because each one of these behaviors also presents an opportunity for intervention, it is essential to understand the full constellation of specific injection drug-using behaviors if planning groups are to support successful interventions. For example, if IDUs inject with sterile syringes and do not share equipment, their risk of drug-related HIV infection is low. However, IDUs who use bleach to clean their syringes still incur risk if they continue to use virus-contaminated rinse water

in the drug solution. The following section provides a general overview of HIV transmission risks associated with drug use, a discussion of the processes of procuring, mixing, and injecting drugs, and a discussion of high-risk sexual behaviors common among drug users.

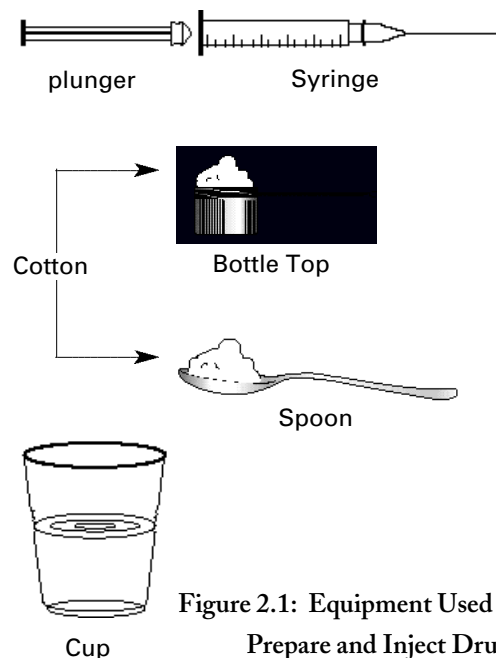


Figure 2.1: Equipment Used to Prepare and Inject Drugs

## Direct and Indirect Transmission of HIV Through Sharing of Injection Equipment

Injecting a drug like cocaine or heroin requires several pieces of equipment that are commonly referred to as a "set of works." Figure 2.1 displays some of the most frequently used components for preparing and injecting drugs. Exhibit D discusses these components in detail.

# Drug Use Practices and Risk for HIV Transmission

## Using a Drug Runner

IDUs often pool their money and make a single drug purchase in an effort to offset the cost of heroin or cocaine and to avoid the risk of arrest and/or imprisonment in buying these drugs. A drug “runner” who purchases drugs for a group of users may become a direct or indirect link for the transmission of HIV to different groups of IDUs. Runners may travel to outside communities or unfamiliar contact groups to negotiate a drug purchase. On these buying “runs,” they may also take part in risky activities, such as testing (“tasting”) drugs, using borrowed injection equipment, or having casual sex with those they come into contact with.

If drug buyers pay the runner with a portion of the drugs bought, the runner may subsequently inject with other members of the group once the drug has been distributed and prepared. The runner may become infected through this process and, in turn, infect others within this own network of IDUs and sex partners. If already infected with HIV, runners may transmit the virus through syringe sharing or sexual activity with members of different groups.

## Using Contaminated Syringes and Drug Preparation Equipment

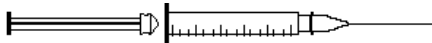


Injection drugs are usually sold in dry powder form, which must be mixed with water and sometimes heated before being injected. This is typically done in a spoon or a bottle cap, called the “cooker.” The drug and water solution is then drawn into a syringe through a filter or a “cotton,” which prevents small particles in the solution from clogging the syringe.

IDUs usually inject the drug into a vein in their arm or hand.

The arm veins of long-time users often are damaged from repeated injections; when this is the case, veins in other parts of their body are used. Before injecting, the IDU must first determine whether the needle has been inserted into a vein. To do so, he or she pulls back the syringe plunger to see if blood enters the syringe. This is called “registering.”

If blood registers in the syringe, the needle is in a vein. Registering contaminates the entire syringe: needle, hub, barrel, and plunger (Normand et al., 1995).



Once the user inserts the needle into a suitable vein, the drug is injected directly into it. To ensure injecting all of the drug, the IDU may pull the plunger back several times, drawing blood into the syringe each time, and then re-injecting it into the vein. This technique, called “booting,” results in a higher volume of residual blood in the syringe (Normand et al., 1995).

HIV survives in the residual blood in used syringes, even if the syringe has been rinsed with water. This was demonstrated in a 1990 study, in which used needles were tested for HIV. Of the needles with visible blood, 20 percent tested seropositive; of those with no visible blood, just over five percent were seropositive (Chitwood et al., 1990). A follow-up study in 1992 found that over half of the syringes with visible blood were HIV positive (McCoy et al., 1994).



After injecting the drug, the user rinses the syringe with water to prevent the clotting of any blood remaining in the syringe. Not only does this not disinfect the syringe of HIV or hepatitis viruses, it also contaminates the rinse water. Drug injection may take place in locations with little access to water, so rinse water may be infrequently changed, and therefore, become increasingly contaminated with each use. "Moreover, rinse water is commonly used not only for rinsing, but also for the mixing of the drug solution to be injected....It is the injection of this contaminated water that poses the greatest threat for HIV transmission, especially in the case of cocaine injection, because cocaine is water soluble and does not always require heating in a cooker to be dissolved" (Normand et al., 1995, p. 27).

The injection of cocaine presents greater risk to the IDU than injection of other drugs or of heroin alone. Cocaine injectors require more injections per day, multiplying the number of opportunities for HIV exposure (depending on injection practices) over those faced by heroin users. The injection of speedball also has been highly correlated with HIV infection (Battjes et al., 1994). In one study, speedball users were one-and-a-half times more likely to be seropositive than were those injecting heroin (Koblin et al., 1990). Another study found that the techniques used for loading syringes with speedball doubled the risk for HIV infection for the IDU (Inciardi et al., 1991).

Through the shared use of drug equipment, HIV can be transmitted from an infected IDU to an uninfected person either “directly” or “indirectly.” Transmission may occur directly when someone injects a drug with a syringe that another person has used and contaminated with HIV. Indirect transmission happens when the drug solution in a syringe is contaminated in the process of mixing or distribution.

## Direct sharing

Even with the advent of AIDS, the use of drug injection equipment by more than one person (multiperson use, or “sharing”) continues to be practiced among injection drug users (Koblin et al., 1990; Mandell et al., 1994; Battjes et al., 1994). Sharing syringes occurs among IDU partners and people who regularly inject drugs together (drug networks) (Hartel, 1994; Williams et al., 1995). Anonymous, sequential sharing also can occur at “shooting galleries,”<sup>1</sup> where syringes are rented out to one person after another without being disinfected (Murphy et al., 1991).<sup>2</sup> Other factors also influence whether or not injection equipment will be shared by IDUs (see Table 2.2).

Not all those who inject drugs do so intravenously, however. For example, injecting a drug underneath the skin (“skin popping”) is a method commonly employed by those just beginning to experiment with drug injection (Inciardi et al., 1991; Kaplan, 1983). Novices may incorrectly harbor the notion that drug dependence as well as HIV transmission cannot occur by this practice. Beginners rarely have their own injecting equipment, so they frequently share another IDU’s syringe.

**Table 2.2:**  
**Factors in Sharing Injection Equipment**

*Sharing drug equipment is a function of a number of interrelated factors, including:*

- demographic factors of users (e.g., age, gender, length of time using drugs, and drug treatment history)
- the availability of drug injection equipment in the community
- perception of the risk of arrest as a result of carrying injection equipment
- perception of risk of infection from HIV and other infectious diseases
- the settings in which injection occurs
- membership in a network of injection drug users
- the type of drug or drugs used
- the frequency of injection

*Source: Normand et al., 1995*

1. “Shooting galleries” are defined and described later in this PART in the section entitled “Social Contexts that Increase HIV Risk.”

2. Research on the history of drug injection in New York City has indicated that there has been a large-scale decline in the direct sharing of contaminated needles. This has been associated with the use of syringe exchange programs and with the fact that many users have switched to “snorting” heroin (Des Jarlais et al., 1994).

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**Table 2.3:**  
**Indirect Sharing Practices**

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*HIV can be transmitted indirectly among injection drug users by use of previously blood-contaminated equipment in any of the following sharing practices. None of these practices involves direct re-use of a syringe for drug injection by another user.*

- **“Backloading,”** in which drug solution is transferred from one previously blood-contaminated syringe to another. In this case, the plunger is removed from the syringe into which the drug will be transferred. The drug mixture is then squirted into the back of the syringe.
- **“Frontloading,”** in which the drug solution is transferred from one previously blood-contaminated syringe to another by removing the needle on the syringe receiving the solution, and then squirting the drug into the syringe’s hub or barrel. This is now relatively uncommon, since most insulin syringes used by IDUs do not have removable needles.
- **Squirting the drug solution** from a previously blood-contaminated syringe into the drug mixing “cooker” or “spoon” and then drawing it into another syringe.
- **Using the plunger** from a previously blood-contaminated syringe to mix the drug with water.

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## Indirect sharing

The risks of HIV exposure with indirect sharing arise from the processes of preparing the drug for injection and dividing it among several users. After purchasing drugs, one user in the group may use his or her syringe to draw up rinse water to mix with the drug. A plunger may be used to stir the solution as it heats, and the drug may be distributed by using the measurement markers on a syringe. Drug users are at risk of HIV transmission if the water or the syringe used for distribution has been contaminated with HIV-infected blood. Table 2.3 shows the indirect sharing practices that may occur with injection drug use.

Many IDUs are unaware of the risk of transmitting HIV through sharing practices. In one study, only 7 percent of the IDUs interviewed were aware of the risks of indirect sharing, even though more than 70 percent of the injectors observed were currently involved or had already participated in an AIDS intervention (Koester et al., 1994).

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**Table 2.3: continued**

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- **Drawing up the drug through a cotton filter** that has been contaminated with HIV-infected blood.
- **Returning the drug** solution from a previously blood-contaminated syringe to the shared cooker or directly to another syringe (this occurs when the user draws up more than his or her allotted share of the drug).
- **“Beating”** a used cotton (or several cottons) to retrieve any drug remaining in the cotton.
- **“Kick out a taste”** by putting a part of the drug/water solution from a previously blood-contaminated syringe back into the cooker or into another IDU’s syringe so that another or several other IDUs can get some of the drug.
- **Rinsing a used, blood-contaminated syringe** in water that other IDUs also use to rinse their own syringes or to dissolve drugs.
- **Draw up the water for dissolving the drug** by using another injectors used, inadequately disinfected syringe.

*Source: Koester et al., 1994.*

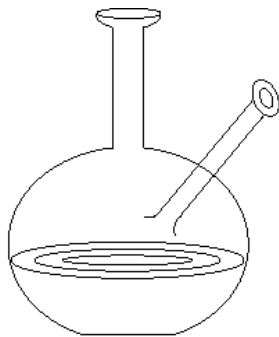
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## High-Risk Sexual Behavior Among IDUs

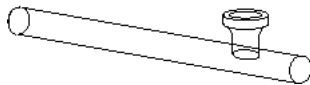
Along with the knowledge of practices and risk behaviors related to drug injection, prevention planners and managers need to take into consideration the sexual risk behaviors of drug users. These include unprotected anal, vaginal, or oral sex; multiple partners; trades of money, drugs, and sex; and lack of treatment for STDs, especially those with ulcerative lesions.

Traditionally, most HIV prevention efforts for IDUs have focused primarily on lowering risk of HIV transmission by changing drug injection practices. Less attention, however, has been paid to lowering the sexual risks of HIV transmission among IDUs. In one recent survey of IDUs, at least half reported that they were not sure that condoms are effective in preventing sexual transmission of HIV and less than one-third reported using condoms (Rhodes et al., 1990). Several studies have found a strong correlation between IDUs’ unsafe sexual behaviors and their risky injection practices, suggesting that IDUs who engage in one unsafe behavior





Water Filter



Crack Pipe

Figure 2.2: Typical Equipment Used to Smoke Crack

are more likely to engage in others (Schilling et al., 1991; Vanichseni et al., 1993; Paone et al., 1995). All studies of risk reduction interventions for IDUs that compared changes in injection risk behavior with changes in sexual risk behavior found greater changes in injection risk behavior (Friedman et al., 1993). Overall, condoms have been found to be used more consistently by IDUs in “casual” sexual relationships than in “primary” sexual relationships and with non-injecting sex partners than with injecting sex partners (Friedman et al., 1994).

## Purchase, Preparation, and Use of Crack

Powdered cocaine, water, and baking soda are heated, forming a waxy substance known as “crack.” Crack is cheaper than other illicit drugs, costing somewhere between \$5 and \$10 for a small bag of crack “rocks.” Typically, a simple glass pipe is filled with one or two “rocks” and then lit. As the crack melts, it vaporizes and makes a crackling sound. The user then inhales the vapor. A water pipe is often used to filter impurities and cool the hot vapor. Figure 2.2 shows two types of pipes commonly used to smoke crack.

The fact that crack is relatively inexpensive, easy to use, and easy to hide makes it extremely popular. However, crack has to be used frequently and repeatedly since its effects are short-lived. As with other forms of cocaine, users can quickly become crack-dependent. Many crack abusers use the substance again and again until their money is gone. Crack users may spend from \$50–\$500 during a three-to four-day binge, known as a “mission,” in which they consume up to 50 rocks of crack each day. During these binges, crack users often do not eat or sleep.

## High-Risk Sexual Behavior Among Crack Users

Crack use is associated with high-risk sexual activities as a result of the exchange of sex for crack or money to buy crack. The circumstances under which crack is purchased, prepared, and used can influence the level of these risks. When a crack user is dependent on sex exchange to purchase or use crack, for example, the level of risk for HIV infection increases significantly. Data on the “intersecting epidemics” of crack and HIV are now emerging and help to shed light on these com-

plex behaviors. Case Example 2.1 describes one recent study that explored this linkage in inner-city young adults.

## **Crack use and the sexual risks of HIV transmission**

Considering cocaine's inhibitory effect on sexual functioning, it is still not clear why there is such a close association between crack use and increased sexual activity. Some theories suggest that it is the disinhibiting effect of drug use or the compulsion to use crack that prompts the sexual activity.

### **Case Example 2.1**

## **Intersecting Epidemics: Crack Use and Sexual Risks for HIV Infection**

Young adults ages 18-29 were recruited from inner-city neighborhoods in New York, Miami, and San Francisco. The study examined 1,967 participants who were regular smokers or non-smokers of crack cocaine but who had never injected drugs. Overall, 15.7 percent of the crack smokers were positive for HIV antibodies, compared with 5.2 percent of non-smokers. HIV prevalence was highest among women who used crack in New York (29.6 percent) and Miami (23.0 percent). In San Francisco, seroprevalence was higher among male crack users, but still substantially lower than all East Coast users and non-users.

Crack smokers of both sexes were more likely than non-smokers to report high-risk sexual practices and a history of STDs. Female crack users were 28 times more likely to have engaged in recent, unprotected sex than were non-users. Crack smoking appears to lead to the transmission of HIV through its association with high-risk sexual practices. Women who use crack and engage in high-risk sexual practices were found to be at nearly equal risk to that of men who have sex with men.

*Edlin et al., 1994.*

Three types of sexual exchanges are commonly associated with crack use (Ratner, 1993):

- *Casual exchange*: a sexual exchange among crack-using acquaintances within a social setting.
- *Sex-for-money-for-crack-exchange*: a commercial exchange in which crack-using prostitutes expect money but will also accept crack for use during the sexual exchange or as a “bonus.”
- *Sex-for-crack-or-money-exchange*: a sexual exchange made out of desperation by those whose lives are dominated by the compulsion to use crack.

All three of these types of exchanges present risks of HIV transmission, although to varying degrees.<sup>3</sup> Since condom use is rare in these circumstances, women are exposed to the potentially infectious semen of all their male partners, who in turn, are also exposed to the semen of the women’s previous male partners. In addition, men who abuse crack often have difficulty ejaculating, which leads to prolonged sexual intercourse and possible breaks and tears in the genital skin and mucosal membranes (Ratner, 1993). These breaks provide opportunities for exposure to potentially infectious genital secretions, blood, and semen. Chronic crack users also can burn their lips and tongue while using hot crack pipes, increasing the risk of HIV transmission during oral sex, an activity frequently performed by both male and female crack users during sexual exchanges for crack or money.

The combination of a strong compulsion to use and the power imbalance that occurs during an exchange of sex for drugs or money presents many challenges to prevention planners and program managers who develop and conduct HIV prevention programs for crack users. In particular, prevention programs need to be designed to reach women crack users who exchange sex for drugs.

## Social Contexts That Increase HIV Risk

As discussed, specific behaviors place drug users at risk for HIV infection. However, these behaviors occur *between people* and often take place in *differing settings* and under *differing social conditions*. Drug use often takes place in small groups that meet in apartments, homes, or residential hotel rooms. Still others use drugs at “party houses,” consisting of a variety of physical settings where individuals gather to use drugs. Examining the settings and social networks in which drug users interact and influence each other can help program planners and managers understand the social contexts that place drug users at high risk of HIV and can help them select and design more focused and effective HIV prevention interventions.

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3. The section on women in “Impact of HIV Among Special Groups of Drug Users,” later in this PART, discusses this issue in further detail.

## **Injection drug use settings**

Some drug-use social settings increase the potential for sharing contaminated equipment or for practicing unsafe sex, and thus influence the risk of HIV transmission. For example, one of the strongest predictors of HIV seroconversion among IDUs is injecting in outdoor settings or abandoned buildings (Friedman et al, 1995). In cities, the most recognized social settings where IDUs gather are “shooting galleries.” Shooting galleries, also known as “safe houses” or “get-off houses,” can be situated in back rooms, basements, dark hallways, or empty rooms of abandoned buildings in sections of cities where drug use rates are high (Inciardi et al., 1993).

Neighborhood heroin and/or cocaine dealers may operate shooting galleries as a service to customers — providing users, at the cost of just a few dollars, with a nearby location to safely “shoot-up.” More often, however, gallery operators are drug users who provide a service for a small fee or a “taste” (sample) of someone else’s drugs. For a fee, IDUs rent a set of works and relax while “getting off.” After using the syringe and needle, the user generally returns them to a central storage place in the gallery where they are held until someone else rents them. These works also may be passed to another user in the gallery, which may involve an exchange of money, drugs, or sex (Inciardi et al., 1993).

For many IDUs, the use of shooting galleries is commonplace. For users who have no works of their own or their friends or “running partners” have no works, then galleries are their logical recourse. This is also true for those who purchase drugs far from home. In addition, some IDUs prefer local galleries because of the opportunities they provide to socialize with other users. (Inciardi et al., 1993).

## **Crack houses**

“Crack houses” are another drug use setting that poses a significant potential risk for HIV. Crack houses are places where users gather not only to purchase and smoke crack, but also to exchange sex for crack or for money to buy crack, or to provide money or drugs for sex (Inciardi et al., 1993). They may also be a place to manufacture or package crack. Crack houses can be located in private houses or apartments, abandoned cars, a vacant building, or a commercial establishment. Depending on the geographical region, crack houses are also known as “hit houses,” “smoke houses,” and “resorts.”

As with shooting galleries, some crack houses charge users admission fees. For additional fees, crack houses may provide crack-smoking equipment, the crack itself as well as other drugs, rooms in which to have sex, and access to sex workers. Crack houses are more likely to be the scene of sex, stealing, bizarre behavior, begging and/or violence than are shooting galleries. Individuals who manage crack houses often recruit chronic crack users, particularly women, to whom they provide crack and sometimes food and shelter, in exchange for the women providing sexual services to male customers (Ratner, 1993).

## **Other settings**

Shooting galleries and crack houses are not the only settings where risky sexual practices and drug use are linked. For instance, the availability of drugs at social and recreational settings, such as bars, massage parlors, social clubs, or through escort services also is frequently linked to risky sexual behavior.

No matter what drugs are used, however, the key component to social settings is the number of drug users in the setting. When social settings bring together multiple individuals who then either inject drugs in a way that transfers HIV-infected blood among them, or have high-risk sex, HIV transmission can more readily occur. Although popular culture dramatizes the risks of transmission in shooting galleries and crack houses, any gathering of people who use drugs, whether in an apartment or a street corner creates the risk of transmission.

## **Social networks**

Social networks are characterized by groups of individuals who are linked by various relationships and common bonds. These networks may comprise people whose common link may be friendship, kinship, short-term acquaintances, or anonymous relationships. Social networks among drug users may vary, depending upon the type of drug used and how it is used, the size of the group, the degree in which the group is open to new members, the level of stability of the group, and the kind of social activity that occurs in the group (Needle et al., 1995).

**Types of social networks.** Networks generally have been characterized as “open” or “closed” systems (Trotter et al., 1995). In “closed networks,” drug use takes place in private residences mainly among individuals who know one another. In these kinds of networks, it is uncommon for users to cross social, cultural, economic or geographic boundaries, thereby keeping HIV transmission relatively confined

within the network. “Kinship networks” are one type of network where members have close kinship or family-based ties.

In “open networks,” HIV may be more easily spread to a greater pool of individuals since the boundaries are not as tight as those in closed networks. Case Example 2.2 describes a type of open network, called an “acquaintance network,” in which member turnover is frequent and multiple drug and sex exchanges occur on a regular basis.

## Case Example 2.2

### Social Networks: A Case Study

“Needle” is a young, HIV-positive, gay, white male. His apartment serves as the network’s social center and as a 24-hour shooting gallery. Network members and those they “sponsor” can purchase and inject drugs at his apartment. Needle and other HIV-positive network members disclose their status, but they leave it up to each member to take preventive precautions. Although members have their own equipment, they still share it with others. When they gather at Needle’s apartment, network members are interested in socializing and getting high and are not necessarily concerned with protecting themselves from HIV infection.

*Source: Adapted from Elwood, 1995.*

**Social network webs.** Large networks often are composed of smaller “webs” of individuals who may engage in risky drug use and sexual behavior (Trotter et al., 1995). Some of these webs are considered “HIV risk contact networks” whose members are at high risk of HIV infection because of the extent and nature of their connections with HIV-positive people in their own web or in connecting webs. If the personal networks of HIV-positive individuals are small and are not connected to larger webs where there are more interactions, the risk of HIV transmission may be less pronounced.

Familiarity with existing social networks within a community can help determine the most effective channels of communication among network members. For example, it may be useful to identify the key “gatekeepers” or “brokers” within a net-

work, who act as the main link to the network's membership. Interventions designed to reach network gatekeepers can help alter risk behaviors within the network (Friedman, 1995).

## **Impact of HIV Among Special Groups of Drug Users**

As shown in the previous section, a user's drug practices and sexual behaviors, and the social context in which he or she uses drugs can all significantly influence that person's HIV risk. In addition, these practices and behaviors appear to be partly dependent on the drug users membership in one or more specific groups in which HIV risk is magnified. These groups are: women who are drug users, partners of drug users, or who trade sex; men who have sex with men and bisexual men; the mentally ill; the homeless; and incarcerated and paroled individuals.

Studies conducted on the prevalence of HIV among drug users highlight the importance of directing prevention efforts to these special groups. For example, a recent report by the Institute of Medicine cites studies showing that HIV prevalence is higher among IDUs who are minority, female, and under 30 years old than that among other population groups (Friedman et al., 1987; Normand et al., 1995; Schoenbaum et al., 1989). By taking a close look at these special groups and the circumstances that place members at high risk, program planners and managers will be able to select and design more relevant and effective HIV prevention interventions.

### **Women**

Data from a number of sources suggest that women should be a population of particular concern. For example, AIDS surveillance data show that an increasing proportion of AIDS cases is being diagnosed among women. HIV seroprevalence studies complement these data by showing the increasing prevalence of HIV infection in several subsets of women in particular. These include minority women and women who are at risk for HIV infection because of their own drug use or that of their partners (Normand et al., 1995). Research is only just beginning to help prevention planners understand the unique needs of these women and the circumstances that lead to their being at risk for HIV infection.

## Women who inject drugs

Although the estimated ratio of male to female IDUs is 3 to 1, it is important to note that female IDUs face special risks. One study, which examined a sample of women in drug treatment, showed that these women had a faster transition from drug use initiation to abuse and dependence and greater severity of dependence as compared to their male counterparts (Anglin et al., 1987; Hser et al., 1987). Other research shows that female IDUs are more likely than their male counterparts to engage in high-risk sex with multiple partners for money or drugs, share needles, and have unprotected sex with an IDU partner (Hartel, 1994).

The substance abuse literature has shown that there are differing experiences for men and women in the drug culture (Reed, 1985; Paone, 1995). For example, compared with male IDUs, female IDUs are less likely to have social support networks, which have been shown to be protective (Reed, 1985; Finkelstein, 1994). Women appear to experience a heightened level of stigma associated with drug use, which, when internalized, often produces feelings of shame and guilt (Reed, 1985). Their social support system, which traditionally places a heavy focus on attachment and affiliation with others, is often damaged by drug use because such use is generally accompanied by social isolation (Finkelstein, 1994). One recent study found that the protective behaviors practiced by disenfranchised women were dependent on their level of self-esteem and the degree to which they perceived life as controllable and meaningful (Nyamathi et al., 1994). However, the social environments in which female IDUs live often do not contribute to their self-esteem or feelings of power in their surroundings. High rates of unemployment, unstable housing, and homelessness are common among these women. Some female injectors also experience physical and sexual abuse, characterized by drug-related violence and illegal activities (Worth et al., 1989).

For several reasons, sexual transmission of HIV from IDUs to their sex partners may present a greater risk for women than for men. Although both male and female IDUs are likely to have IDU partners, this possibility is particularly high among women (Mandell et al., 1994). One study showed that 75 to 90 percent of female IDUs have a male injection-drug-using partner, compared with 20 to 50 percent of male users who have female drug-using partners (Donoghoe, 1992).

Female IDUs who are sex partners of male IDUs also use sex as a way to obtain drugs (Donoghoe, 1992). According to one study, approximately 25 percent of female IDUs trade sex for either money or drugs (Saxon et al. 1991). The risk of HIV infection is increased when they also share needles with their sex partners. Injection-drug-using women may be less likely to use condoms with their sex



partners than non-injecting women who have IDU sex partners (Cohen, 1991). In addition, the use of condoms by female IDUs with sex partners varies according to the type of sex partner (casual, primary, partners with which the IDU exchanges money or drugs). Among women participating in needle exchange programs, 60 percent who exchanged sex for money or drugs, 50 percent who had sex with casual partners, and 32 percent who had sex with primary partners reported “always” using a condom (Paone et al., 1995).

Research has shown also that a strong predictor for HIV seroconversion among female IDUs is engaging in woman-to-woman sex. It is likely that the reason for high seroconversion rates for these female IDUs is that the people with whom they inject drugs are more likely than other IDUs to be infected. Female IDUs who have sex with women are more likely than other female IDUs to share needles or syringes with male IDUs who have sex with men (Friedman et al., 1995).

### **Female sex partners of IDUs**

According to the National Research Council, female sex partners of IDUs have been difficult to study and reach with prevention programs (Miller et al., 1990). These women are often difficult to identify, since they rarely belong to any unifying social group and may have very unstable living conditions.

Many female partners of IDUs may not be aware of their partner’s injection practices or may be unwilling or unable to acknowledge this behavior. Women may fear the confrontation that might occur if drug use practices are openly addressed. Without recognition or acknowledgment of their partners’ risky practices, these women may perceive their risk as unrealistically low and have little reason or opportunity to use condoms.

### **Female crack users**

The association between crack use and HIV infection is significantly stronger among women than among men (Edlin et al., 1994). Women who smoke crack frequently engage in sex work and often have a history of genital ulcer disease, making them more vulnerable to the acquisition or transmission of HIV. Female crack users who exchange sex for drugs or money to buy drugs also may not be able to negotiate condom use with their sex partners. Females who smoke crack and barter sex generally have degrading sexual experiences in which they are the subordinate partner and subject to abuse (Ratner, 1993). HIV prevention programs for these women must take into account this social dynamic.

## **Female sex workers**

A study of 1,396 female sex workers in six U.S. cities found an HIV seroprevalence of 12 percent, ranging from zero to nearly 50 percent, depending on the city and the level of injection drug use (CDC, 1987). Street sex workers are likely to be dependent on drugs and alcohol and therefore more vulnerable to HIV infection (Alexander, 1992). Many are poor or homeless and have a history of child abuse. Female injection drug users who trade sex for money or drugs are more likely to share needles than female injectors who do not engage in sex trading, and are less likely to use new needles or to clean old ones (Kail et al., 1995).

The circumstances of subordination and powerlessness in which many sex workers live increase their vulnerability to HIV infection. For example, if business is slow, if they are desperate for money to buy drugs, or if a client offers substantial money, a sex worker may agree to unprotected sex. Violent clients may force unsafe sex. In many cities, police confiscate condoms when they arrest or stop sex workers, and they may have difficulty getting replacements. (CAPS, 1996).

Regardless of whether a female drug user is an injector or non-injector, a sex trader or commercial sex worker, the power imbalance they may experience with men may make it difficult for women to change their sexual behaviors. Prevention planners and program managers should be sensitive to the unique issues experienced by such women and support and develop programs that adequately address the multiple obstacles faced by women at risk for HIV infection.

## **Men Who Have Sex with Men (MSM) and Bisexual Men**

Relatively little HIV/AIDS research has focused on male IDUs who have sex with men or who are bisexual. AIDS case data indicate that men in this dual risk group are at substantially increased risk for AIDS compared with those reporting either risk behavior alone. According to CDC this subpopulation of IDUs comprises 6 percent of all AIDS cases, 10 percent of AIDS cases occurring in MSM, and 21 percent of AIDS cases occurring in IDUs (CDC, 1996). One analysis of MSM and bisexual men participating in the San Francisco Men's Health Study found that this subpopulation was more likely to report high-risk sexual activity at study entry than were non-IDU MSM and bisexual men (Stall et al., 1989). Another study, which looked at male sex workers in San Francisco, shows the significant risk for these men by documenting high rates of injection and needle sharing

among hustlers and call men in communal settings such as shooting galleries and sex clubs (Waldorf, 1994). In addition, the increased use by MSM IDUs of methamphetamine, which induce heightened sexual needs, has increased their risk for HIV through both needle sharing and high-risk sexual behavior.

## **The Homeless and Mentally Ill**

There are significant overlaps among chronic mental illness, substance abuse, unsafe sexual behavior, and homelessness. For example, surveys and exploratory studies of drug-related behavior consistently indicate that the prevalence of injection drug use increases as housing becomes more unstable (NIDA, 1990). As many as 30 percent of homeless adults may be substance abusers (Schutt et al., 1992). Reported rates of alcohol problems average 50 percent, with evidence that homeless, alcohol-dependent adults display more severe forms of alcoholism (Fischer et al., 1991; Schutt et al., 1992).

Overall, homeless adults have higher rates of HIV seroprevalence than do the general population. This is especially true in areas of high HIV prevalence. Data from two New York City psychiatric hospitals found about a five percent seropositivity rate among homeless, mentally ill patients, compared with a rate for the general population in New York City of less than three percent (Cournos et al., 1991). One sample of non-hospitalized homeless psychiatric patients in a New York City homeless shelter for males showed that almost one-fifth were HIV positive (Susser et al., 1993). In Miami, 9.8 percent to 14.3 percent of homeless persons entering clinics were seropositive (Greer et al., 1989).

A survey of homeless adults entering a storefront medical clinic found that over two-thirds were at risk for HIV infection from various sources, including unprotected sex with multiple partners, injection drug use, sex with an IDU partner, or exchanges of unprotected sex for money or drugs. Almost half reported at least two risk factors combined, and one-fourth reported three or more risk factors (St. Lawrence et al., 1995). Along with facing multiple risks for HIV, many homeless people find it hard to form safe and stable intimate relationships because of their drug use, mental illness, violence, or transient living situations. For example, a study of homeless women found that almost all had been exposed to battery, and over half to rape. (Fisher et al., 1995).

## **Incarcerated Persons and Parolees**

Drug offenses account for the single largest number of federal crimes for which people are incarcerated (Polonsky, 1994). In 1991, almost 80 percent of state prison inmates reported using illicit drugs at some time (DOJ, 1993). High rates of HIV infection occur in this population, with female inmates, inmates age 25 or younger, and African American and Hispanic inmates having the highest rates of infection (Polonsky, 1994). As reported by the National Institute of Justice in 1994, the AIDS incidence rate for people in correctional facilities (aggregated across all facilities) was 518 per 100,000, up from 392 per 100,000 in 1992-93, as compared to 41 per 100,000 in the general population of the U.S. (DOJ, 1994). Additional data show that the overall rate of confirmed AIDS among the nation's prison population (0.52 percent) was more than seven times the rate in the general population (0.07 percent) (DOJ, 1996). In 1991, only one percent of federal inmates who had moderate to severe drug abuse problems had received appropriate treatment; for those who did complete treatment, there were no aftercare services in place to help them remain drug-free when reentering the community (U.S. House of Representatives, 1991). HIV prevention planners and program managers need to work with the judicial and correctional systems, including the drug courts that exist in some cities, to support and plan programs for HIV risk reduction and drug-free living for paroled and released inmates and for correctional staff.

## **Determining the Extent of HIV Infection Among Drug Users**

Thus far, PART 2 has given an overview of drug-using practices, the high-risk sexual behaviors of drug users, and the social context of drug use. It also has discussed several specific population groups who are heavily affected by the HIV epidemic. This provides important background for HIV prevention planners and program managers, who will be prioritizing, designing, and implementing HIV prevention programs in their communities.

With this background in mind, one of the first things that prevention planners and program managers will need to do when developing an intervention program is to develop a profile of the extent of HIV infection among the drug users in their community. Some of the data needed to develop such a profile can be obtained from HIV/AIDS surveillance and reporting systems. These data, which are available to local planners and program managers through their health departments, provide information on the number and characteristics of persons diagnosed with AIDS or recently infected with HIV, and about the mode of exposure to HIV.

**Table 2.4: Key Data Sources for Local HIV Prevention Planning**

HIV/AIDS surveillance
AIDS surveillance
HIV-infection surveillance
HIV serosurveillance
Supplement to HIV/AIDS surveillance (SHAS)
Behavioral surveillance
Behavioral risk factor surveillance
Youth risk factor behavioral surveillance
Other data sources
Drug treatment agency data (e.g., percent polydrug users, percent IDUs, HIV incidence/prevalence of client population)
Mental health service agency data (e.g., percent of clients with mental illness, chemical dependency, homelessness)
Local drug use surveillance
Surveillance for surrogate markers of HIV risk behavior
STD surveillance (syphilis, gonorrhea, chlamydia)
Teen pregnancy surveillance
Hepatitis B and hepatitis C surveillance

Note: For more information, consult CDC's *Suggested Guidelines for Developing an Epidemiologic Profile for HIV Prevention Community Planning* and Chapter 4 of the *Handbook for HIV Prevention Community Planning*. (For ordering information, see Part 5: RESOURCES.)

This information will help to increase the understanding of the extent of drug use among persons infected with HIV as well as the patterns of drug use and HIV risk in certain parts of the U.S. State and local health departments have epidemiologists on staff who can help planning groups and program managers understand these data and their strengths and limitations. Table 2.4 lists some major data sources, a number of which are discussed on the page 2-23.

In addition, there are other sources of local data that may be useful to planners. Some of these sources have been designed to supplement national HIV/AIDS surveillance data, and provide information on the scope of the epidemic attributable to injection drug use. For example, several local HIV/AIDS surveillance programs and a number of special studies have begun to report data on the association between HIV exposure and the use of non-injection drugs, such as crack (Chirgwin et al., 1991; Chiasson et al., 1991; Diaz et al., 1993; Diaz et al., 1994; Edlin et al., 1994; Ellerbrock et al., 1995; Sugarman et al., 1995).

## Sources of Data

Following are brief descriptions of specific sources of national, state, and local data that may be useful to planning groups and program managers as they come to understand the HIV and drug use profile of their communities and as they prepare to select and develop interventions. Definitions of key terminology can be found in Exhibit E.

## **AIDS surveillance**

Almost all persons with AIDS who receive medical attention are reported to the national AIDS surveillance system, making these data representative of persons with AIDS. Of all AIDS cases reported to CDC in 1995, just over 35 percent were associated with injection-drug use (CDC, 1996). Among those with IDU-associated AIDS, just over half were heterosexual males, 20 percent were female, and 13 percent were men who have sex with men. The rest were male and female heterosexual partners of IDUs (11 percent), and children whose mothers were either IDUs or sex partners of IDUs (1 percent). Because of the completeness and representativeness of AIDS surveillance data, emerging trends in characteristics of HIV-infected persons can be detected by analysis of AIDS case surveillance data. However, because AIDS surveillance represents those persons with advanced HIV disease, early detection of trends among subgroups may not be possible. Also, surveillance of AIDS cases may fail to detect cases in some subgroups, such as lesbians, because questions about sexual orientation among females may not be asked or answered.

## **HIV-infection surveillance**

As of November 1996, confidential HIV infection reporting for adults and adolescents by name is required by 26 states and for children by 29 states. HIV reporting is an adjunct to AIDS surveillance. HIV-reporting data provide a minimum estimate of the number of persons known to be infected with HIV in states with confidential HIV infection reporting. These data may be used to anticipate trends among particular groups, such as adolescents.

These data are representative only of HIV-infected persons who are confidentially tested for HIV in the states where HIV reporting is required. HIV-infection reporting data are not representative of HIV-infected persons who have not been tested, who have been tested anonymously, or who live in states or territories where HIV reporting is not required.

## **Clinic-based seroprevalence surveys**

Clinic-based data compiled by CDC provide important information about HIV seroprevalence among injection drug users. These data also provide a valuable window on the drug-use practices in local areas and how these practices differ from area to area. For example, seroprevalence surveys conducted in local drug treatment centers (DTCs) over the past several years provide information on persons

# Important Terms Related to HIV/AIDS Surveillance

<b>Anonymous HIV testing</b>	HIV test conducted without identifiers so that a person's name cannot be linked with a test result.
<b>Confidential HIV testing</b>	HIV test linked to a person's name, which is kept confidential under state/local laws assuring confidentiality to prevent potential for disclosure or discrimination and to protect the patient's rights to privacy.
<b>Incidence</b>	The number of new cases of a disease or condition that occur in a specified population during a specified period of time. Often incidence is expressed annually, e.g., the number of AIDS cases diagnosed in the United States in 1995. HIV incidence is the best measure of the need for, and the effectiveness of, primary prevention programs. Incidence studies measure ongoing HIV transmission, and thus the current dynamics of the HIV epidemic. However, they are complicated to conduct and require that persons be tested repeatedly to determine if and when they become infected. Incidence studies are not practical, nor would they be widely acceptable, in most locations.
<b>Incidence rate</b>	The number of new cases that occur in a specified population during a specified period of time divided by the population at risk; often expressed as annual incidence per 100,000 population.
<b>Prevalence</b>	The number of persons in a specified population living with a disease or condition at a specific time. Estimates of HIV prevalence allow planners to identify the populations from which future AIDS cases will arise. HIV prevalence estimates provide a more complete picture of the magnitude of the HIV epidemic than does the prevalence of AIDS, which represents only those persons with advanced HIV disease, or than do HIV infection reporting data, which represent only those persons who choose to be confidentially tested for HIV.
<b>Prevalence ratio</b>	The number of persons in a specified population living with a disease or condition at a specific point in or period of time divided by the population at risk, sometimes expressed as a percentage.
<b>Serologic</b>	Pertaining to the serum, the clear portion of the blood.
<b>Seroprevalence</b>	The number of persons in a specified population who have serologic evidence of a disease at a specific point in or period of time.
<b>Serosurveillance</b>	Ongoing, systematic collection, analysis, interpretation, and timely dissemination of serologic data. The Survey of Childbearing Women, which measures the seroprevalence of HIV infection among women giving birth to live-born infants by testing infants for maternal antibody to HIV, is an example of serosurveillance.
<b>Surveillance</b>	The ongoing, systematic collection, analysis, interpretation, and timely dissemination of outcome-specific data for purposes of prevention and control of disease. Example include surveillance for AIDS, viral hepatitis, salmonellosis, and tuberculosis.

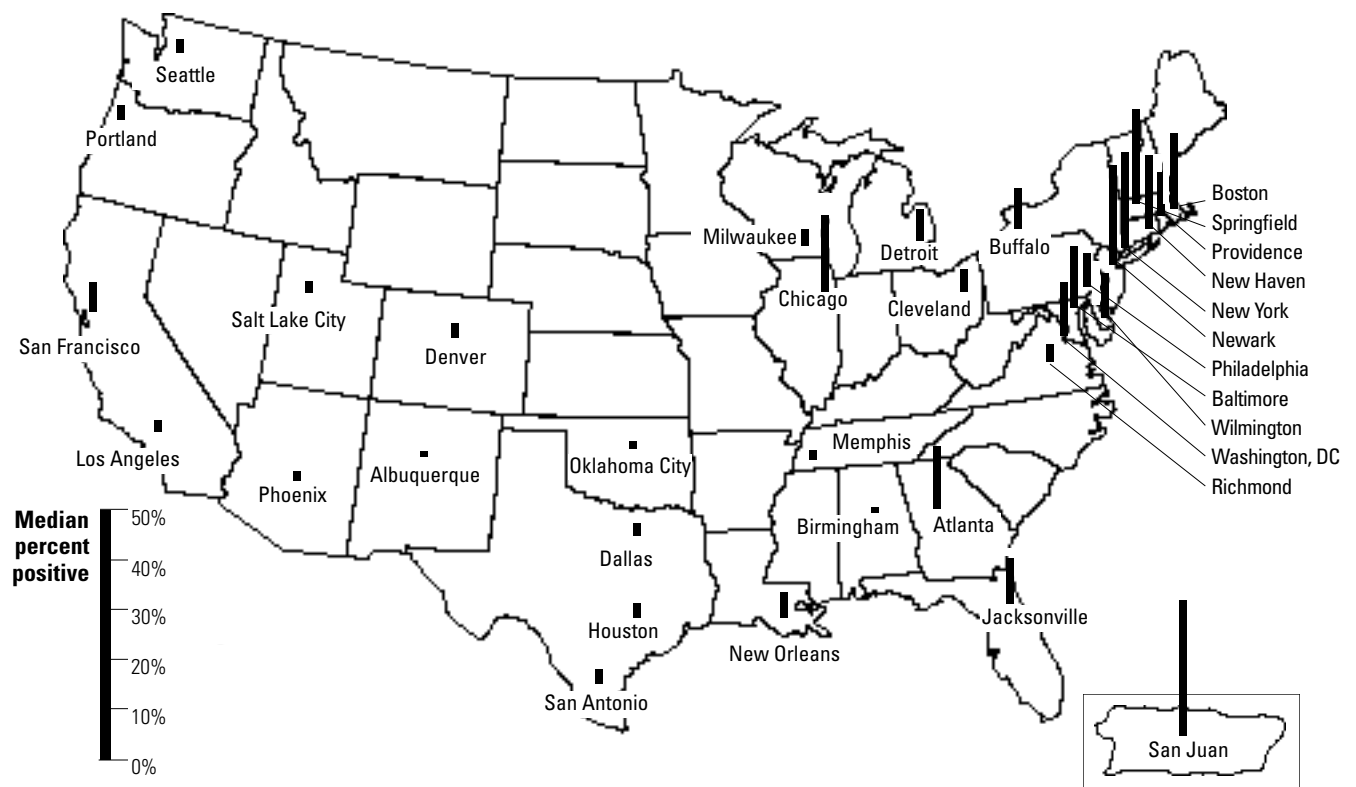
*NOTE: Please see Appendix C: GLOSSARY, for definitions of more HIV/AIDS-related terms used in this book.*

who enter participating DTCs and who report injecting illicit drugs during the previous year (CDC, 1994a). Seroprevalence among IDUs entering DTCs was the second highest of any group surveyed in CDC's National Serosurveillance Program. In 1991-1992, the HIV seroprevalence among IDUs ranged by DTC from less than one percent to more than 50 percent.

From 1991 through 1992, 39 STD clinics in which seroprevalence surveys were conducted reported at least 50 injection drug users (the minimum number required for calculating seroprevalence). Median seroprevalence among injection drug users attending these STD clinics was around six percent. A number of findings from the surveys of these DTCs (CDC, 1994b) show how data from a national reporting system can be used to plan, design, and implement interventions that are appropriate to local communities:

**Geographic differences.** HIV seroprevalence among IDUs differs dramatically according to location. DTCs in metropolitan areas along the Atlantic Coast and Puerto Rico showed the highest median HIV seroprevalence, ranging from just

Figure 2.3: HIV Seroprevalence Among IDUs Entering Drug Treatment Centers, 1991 through 1992





under 5 percent to around 40 percent. The median HIV seroprevalence in DTCs in the Midwest ranged from 3 percent to 17 percent, and from less than 1 percent to around 7 percent in the West. Figure 2.3 displays the HIV prevalence reported in 34 metropolitan areas among IDUs entering DTCs (CDC, 1994a).

Although the reasons for these geographic differences are unknown, several plausible hypotheses have been advanced. First, injection drug use (and the potential for HIV transmission) will occur most frequently near channels of drug distribution. Second, like gonorrhea and syphilis, the drug-related transmission of HIV may be a “core group” phenomena whereby the occurrence of “a disease is clustered geographically and sociodemographically in distinct population subgroups. The extent to which those in the core group have sexual [or injecting] partners outside the group determines STD [or HIV] distribution” (Marx 1991, p.93).<sup>4</sup>

Finally, it has been suggested that the mode of transmission influences geographic distribution of HIV prevalence. The fact that some MSM have traveled widely and live all around the country accounts for the geographic similarity of HIV prevalence in the homosexual population. On the other hand, the fact that IDUs are less mobile and tend to stay in certain parts of the country might account for the geographic differences among HIV prevalence in this population (Hu et al., 1994).

**Racial and ethnic differences.** In all geographic regions, the median HIV seroprevalence by DTC was substantially higher among African Americans than among whites. HIV seroprevalence was generally higher among Hispanics than among whites, a difference largely due to the higher seroprevalence among Hispanics in the Northeast.

**Gender differences.** Evidence from the DTCs showed that seroprevalence rates among men and women were generally similar. In a different seroprevalence study conducted from 1988 to 1993, however, seroprevalence was similar among men and women except in the South, where the seroprevalence among women was almost twice that among men (Prevots et al., 1996).

HIV seroprevalence among IDUs entering DTCs increased before 1989 and has stabilized, although marked geographic variations remain (CDC, 1994a). Prevots et al. support these findings, and suggest that, based on “estimates of historical in-

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4. Core groups, also known as “social networks,” were discussed in more detail in the section on “Social Contexts that Increase HIV Risk” previously in PART 2, and are also discussed in PART 3: SOCIAL AND BEHAVIORAL INTERVENTIONS, in the section on “Interventions Using the Social-Level Approach to Behavior Change.”

fection rates...the peak years of HIV incidence among injection drug users in the United States were 1983-1986” (Prevots et al., 1996, p.739).

Because IDUs entering DTCs may not be representative of all IDUs, these data should be interpreted with caution, and other sources of information used, such as studies conducted among street-recruited IDUs (Deren et al., 1995; Friedman et al., 1995). Nonetheless, DTC seroprevalence data interpreted along with data on HIV seroprevalence among IDUs attending STD clinics may provide a more complete picture of the potential for HIV acquisition or transmission in a given community.

## **Supplement to HIV/AIDS Surveillance**

CDC collaborates with 11 state and local health departments in a project called the Supplement to HIV/AIDS Surveillance (SHAS). The data generated from this project are important because they represent localized drug use that is specifically related to HIV seropositivity in that community. These data also are important because they include information on non-injection drug use. Other state and local health departments may want to explore how they can develop locally relevant data sources in collaboration with the CDC/SHAS process.<sup>5</sup>

In the SHAS project, interview data are collected from a cross section of persons aged 18 years or older with AIDS (or HIV infection in HIV-reporting states) who are medically able to complete interviews. Among 1,142 persons reported with HIV infection or AIDS who also reported injection drug use, 71 percent reported injecting more than one drug. Overall, 35 percent of IDUs interviewed reported cocaine as their primary drug injected, followed by heroin (28 percent), speedball (17 percent), and amphetamines (16 percent). The primary drug injected varied notably by state or city of residence (see Table 2.5). For example, heroin was reported as the primary drug injected by nearly all IDUs interviewed in Detroit and by almost half of IDUs interviewed in Connecticut, but by one-quarter or fewer of IDUs interviewed in all other areas. (Diaz et al., 1994). SHAS data suggest that, overall, cocaine has been the most popular drug for injection among IDUs with HIV/AIDS, and that cocaine also has been positively associated with the practice of needle sharing (Diaz et al., 1994; Mandell et al., 1994).

SHAS data also suggest that some IDUs may serve as a bridge between the injecting community, in which the prevalence of HIV infection is high, and the crack-using community, in which the prevalence of high-risk sexual behavior is high

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5. The CDC section of PART 5: RESOURCES, provides information on how to explore ways of developing locally relevant data sources in collaboration with the CDC/SHAS process.

**Table 2.5: Primary Drug Injected by Persons With HIV/AIDS Who Have Ever Injected Drugs, by State or City of Residence<sup>a</sup>**

	No.	DRUG TYPE, %				
		Cocaine	Heroin	Speedball	Amphetamine	Other <sup>b</sup>
Florida	263	37	11 <sup>c</sup>	46 <sup>c</sup>	3 <sup>c</sup>	3
Denver	157	46	19	2 <sup>c</sup>	31 <sup>c</sup>	3
Detroit	145	1 <sup>c</sup>	94 <sup>c</sup>	4 <sup>c</sup>	1	1
Atlanta	119	56 <sup>c</sup>	20	9	9	5
Arizona	112	44	15	9	25	7
Los Angeles	90	25	25	14	23	13 <sup>c</sup>
Connecticut	89	30	48 <sup>c</sup>	22	0	0
Washington	85	24	12	4 <sup>c</sup>	56 <sup>c</sup>	3
South Carolina	42	64	12	10	14	0
Delaware	40	55	23	12	8	3
<b>Total sample</b>	1142	35	28	17	16	3

**Note.** Percentages are based on row totals.

<sup>a</sup>Excludes New Mexico because only five persons interviewed reported injection drug use; these five persons are similarly excluded from the total.

<sup>b</sup>Includes PCP/LSD, barbiturates, steroids, and other nonspecific or unknown drugs.

<sup>c</sup> $P < .005$  based on multiple (10) comparisons with the average proportion of persons injecting a specified drug.

Source: Diaz et al., 1994

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(Diaz et al., 1994). In Houston and Dayton/Columbus, Ohio, 75 percent and 70 percent of IDUs, respectively, smoked crack in addition to injecting drugs (Williams et al., 1995).

## Other sources of data

Additional data about the drug-using population may be available from local drug treatment and mental health professionals and STD clinics, as well as from local surveys of drug use and risk behavior funded by a range of federal agencies, in-

6. More information on these and other local sources of drug use and risk behavior, such as the SHAS project, the Behavioral Risk Factor Surveillance System, or the Youth Risk Behavior Surveillance System, can be found in CDC's Suggested Guidelines for Developing an Epidemiologic Profile for HIV Prevention Community Planning and the Handbook for HIV Prevention Community Planning. Information on how to obtain both of these documents can be found in PART 5: RESOURCES.

cluding CDC, the National Institute on Drug Abuse (NIDA), and the National Institute on Mental Health (NIMH).<sup>6</sup> Since the drug-using population relies on the mental health and drug treatment system for services, representatives from local agencies providing these services can contribute much to local prevention planning and program development. Drug treatment and STD clinics offer opportunities to collect data as well as to provide HIV and STD prevention services to the drug user. With proper assurances of protection of confidentiality, health professionals can work together to identify populations vulnerable to infection, facilitate contact with, and provide cross referral for those populations.<sup>7</sup>

It should be noted, however, that the availability of agency data for prevention planners may vary considerably, based on reporting requirements and staff capacity to summarize these data in an aggregate way. Although data may be available, for example, on the percentage of drug users in an agency's funded programs, there may not be data on the types of drugs used by this population. Alternitavely, data may be available from a mental health service agency on the percentage of clients/patients who are dual-diagnosed (e.g., mental illness and chemical dependency), but not be available on how many of these clients/patients are homeless. When certain data are not available for planning purposes, it is best to conduct structured interviews with a representative sample of relevant professional providers to retrieve the information.

## **Surrogate markers**

Surrogate markers of HIV risk behavior can be another valuable indicator of the potential for HIV transmission within a community. One example of a surrogate marker is teenage pregnancy rates, which indicate unprotected sexual intercourse and, therefore, HIV risk behavior. Another marker is rates of sexually transmitted diseases (STDs) acquired through unprotected sexual intercourse. Because sexually transmitted disease rates are a reliable indicator of high-risk behavior, groups with high rates of STDs are at increased risk for the spread of HIV infection once it has been introduced into the group.

Rates of infection with hepatitis B virus (HBV) and hepatitis C virus (HCV) may sometimes be used as surrogate markers because HIV can be transmitted by the same drug injection practices that transmit HBV and HCV. Like HIV, these in-

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7. PART 4: PUBLIC POLICY ISSUES discusses in more detail issues surrounding the preservation of confidentiality for drug users.

fections also can be transmitted sexually and perinatally. Because the incidence of HBV, and probably HCV, is commonly higher than that of HIV infection (Borotolotti et al., 1982; Chamot et al., 1992; CDC, 1991), studies of HBV and HCV infections have been suggested as a method of evaluating some HIV prevention programs (Committee on Social and Behavioral Sciences, 1992).

Since syphilis, gonorrhea, chlamydia, hepatitis B, and hepatitis C are reportable diseases, locally reported data on these diseases may be used by HIV prevention planners and program managers as an indirect way to determine the prevalence of high-risk behaviors in the local population and the potential for HIV spread, once it is introduced into the population. However, incidence of these infections is seriously under-reported, especially hepatitis B and C, because the majority of persons infected with HBV and HCV do not have symptoms.

Prevention planners and program managers should be aware, however, that hepatitis B (HBV) cannot always be used as a reliable surrogate marker for HIV transmission. HIV transmission not only depends on individuals engaging in risk behaviors, but also on the prevalence of HIV in the community. Thus, although the prevalence of HBV among drug users is generally high, HBV would not be considered a reliable surrogate for HIV prevalence in a community where the prevalence of HIV is low, even if HBV prevalence among drug users in that community were high. Current research on the relationship between HBV and HIV seroconversion has demonstrated that trends of incident HBV infection do not parallel trends of incident HIV infection in a population of IDUs followed over time. At an individual level of analysis, however, incident HBV infection is a predictor of incident HIV infection among male but not female IDUs (Levine et al., 1996).

# Key Questions for HIV Prevention Planners and Program Managers

The following key questions related to PART 2 may help prevention planners and program managers select and implement more effective programs for drug users and their sex partners:

- What kind of information is available from national, state, and local sources (e.g., health departments, academic institutions) on HIV seroprevalence, surrogate markers, drug use, and risk behaviors among drug users?
- What data do we have about HIV in IDUs? In crack users? What are the strengths and limitations of the information?
- What do we know about HIV risk behaviors and drug use in populations at risk, including women, particularly those who exchange sex for drugs and money, MSM and bisexual men, the homeless/mentally ill, or incarcerated or paroled individuals?
- What are the social settings and networks that may increase HIV risk among drug users in the community?
- Are shooting galleries and/or crack houses common in the community or do users more commonly gather in private settings (e.g., cars)?
- Who among the drug user community are the key points for communication with other drug users?
- How can we initiate locally relevant data gathering in collaboration with other local, state, and national organizations, or as part of other ongoing surveys and studies?
- Who should be involved in gathering and reviewing available information and determining program priorities?

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# **3 SOCIAL AND BEHAVIORAL INTERVENTIONS**

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## **3-2 Theories of Behavior and Behavior Change**

- 3-2 The Role of Theory in Planning Interventions
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- 3-7 Using Theory to Plan and Design Effective Interventions

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# SOCIAL AND BEHAVIORAL INTERVENTIONS

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PART 3 of the HPDU Resource Book addresses the use of social and behavioral theory in selecting and developing effective HIV prevention interventions with drug-using populations. In addition, it provides an overview of the characteristics of effective interventions and highlights selected studies and resource materials that focus on effectiveness.

PART 3 is intended to help HIV prevention planners and program managers gain a better understanding of the foundations of scientifically-based interventions. These interventions can effectively modify the drug-using and sexual behaviors that place drug users at increased risk of HIV infection.

Specifically, PART 3 will increase HIV prevention planners' and program managers' understanding of:

- *social and behavioral theories and theoretical factors related to specified target populations and their risk behaviors*
- *the process of systematically deciding on intervention features during the planning and intervention design process*
- *the characteristics of effective interventions*
- *the results of existing evaluation research on successful interventions for drug users and their partners*

In each case, PART 3 will provide examples illustrating the points and describe additional resources that planners can access to determine appropriate HIV prevention interventions for their priority target populations.

## Theories of Behavior Change

### The Role of Theory in Planning Interventions

Early in the epidemic, prevention planners assumed that a greater awareness of the factors involved in HIV transmission would more likely result in the adoption of HIV prevention behaviors. It is now known that HIV prevention efforts cannot rely solely on providing risk information. Other factors also must be addressed. Theory can help identify these additional social, psychological, and cultural factors and can help planners decide which factors need to be addressed for which populations.



Social and behavioral science theory helps clarify the reasons why people behave as they do, and it gives planners a framework for the goals and components of an intervention. This is particularly true in situations where planners have little empirical information from evaluated HIV prevention interventions to indicate which approaches are likely to be effective.

The more that is known about the factors that influence whether or not a person will engage in a behavior, the more successful prevention planners and program managers can be at selecting an intervention that effectively influences that behavior. Social and behavioral theory, and testing this theory in HIV prevention interventions, can help identify more specifically the factors that programs need to address to facilitate behavior change.

In fact, prevention planners and program managers regularly use behavioral theory. Because HIV is largely transmitted through behavior — sexual and drug-using — planners and managers know that they must promote behavior change. They are familiar with at-risk populations in their communities, and often have an intuitive understanding of what characteristics and circumstances of their target populations influence their risk behaviors. By using social and behavioral theory and research, planners and managers can verify much of their practical experience, challenge certain assumptions, and, overall, have a firmer scientific foundation for selecting and designing effective interventions. In short, the use of behavioral science can help improve programs, increase effectiveness, and save valuable time, resources, and lives.

## **Some Important Theories and Approaches**

Theoretical approaches identify different sets of factors to explain HIV risk behavior change. This section reviews several theoretical approaches that are commonly used to explain and influence behavior and behavior change related to HIV prevention. These theories lay out factors thought to influence behavior and behavior change, principles about how these factors are related, and methods for measuring these factors.

### **Major behavior change theories**

Of the many different theories of human behavior, three have been used frequently in behavioral and social science research on the prevention of HIV infection. The Health Belief Model (Rosenstock et al., 1994) from health education focuses on four key health beliefs that are necessary to produce a readiness to act. The Theory of Rea-

soned Action (Fishbein et al., 1989) is a social psychological approach dealing with the relationships among beliefs, attitudes, intentions, and behaviors. Social Cognitive Theory (Bandura, 1994) is rooted in cognitive learning theory and clinical psychology.

Fortunately for program planners and managers attempting to select among interventions, there is a significant overlap and consistency among these theories. Eight basic or common factors have been identified as points of consensus among the theorists (Fishbein, et al, 1993). These eight factors, which were summarized in a National Commission on AIDS 1993 report (see Table 3.1), have been shown empirically to account for or explain most of the variation in the ways that individuals act out a given behavior. An effective intervention will influence one or more of these common factors.

**Table 3.1:**  
**Eight Common Theoretical Factors**

<b>Factor</b>	<b>The Individual at Risk Must</b>
<b>Expected Outcomes (attitude)</b>	Believe the advantages of performing the behavior (the benefits) exceed the disadvantages
<b>Intention</b>	Have formed a strong positive intention or commitment to perform a behavior
<b>Skills</b>	Possess the skills to perform a behavior
<b>Self-Efficacy</b>	Be confident that he/she can perform a behavior
<b>Emotion</b>	Believe that the performance of a behavior will more likely produce a positive than a negative emotional response
<b>Self-Standards</b>	Believe that the performance of a behavior is consistent with his/her self-image
<b>Perceived Social Norms</b>	Perceive greater social pressure to perform a behavior than not to perform it
<b>Barriers</b>	Experience fewer environmental constraints to perform a behavior than not to perform it

*Source: National Commission on AIDS, 1993.*

## The stages of behavior change approach

Along with addressing the factors that influence behavior, prevention planners and program managers may want to use a model that proposes that behavior change occurs in stages (Prochaska et al., 1992). Called the Transtheoretical Model, this approach assumes that individuals start with no intention to change, form weak intentions, strengthen these intentions, try the behavior inconsistently at first, and then finally adopt the new behaviors as a routine part of their lives. The model also accounts for those individuals who successfully progress through all five stages of behavior change, but who may relapse back to previous stages and engage in harmful behaviors again. Table 3.2 describes the five stages of change. According to this model, designing an effective intervention is a matter of determining where an individual is on the continuum of behavior change and choosing an intervention that moves him or her to a subsequent, more advanced stage.

The eight common theoretical factors reviewed earlier and stages of behavior model change work well together because the various theoretical factors can be used to move persons from stage to stage in their behavior change. For example, to motivate individuals at the pre-contemplation stage to form intentions to change behavior, an intervention might first create a perception of risk in order to alert them to the potential danger of not changing. For individuals at the preparation stage who have formed an intention to change behavior, an intervention might try to increase their confidence or, “self-efficacy,” in performing a safe or safer behavior.

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**Table 3.2:**  
**Stages of Behavior Change**

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<b>Pre-contemplation</b>	Individuals in this stage have no intention to change behavior in the foreseeable future, are unaware of the risk, or deny the consequences of risk behavior.
<b>Contemplation</b>	Individuals are aware that a problem exists, are seriously thinking about overcoming it, but have not yet made a commitment to action.
<b>Preparation</b>	Individuals intend to take action in the near future and may have taken some inconsistent action in the recent past.
<b>Action</b>	Individuals modify their behavior, experiences, or environment to overcome their problems; the behavior change is relatively recent.
<b>Maintenance</b>	Individuals work to prevent relapse and maintain the behavior change over an extended period of time.

*Source: Prochaska et al., 1992*

## Social-level approaches

As reviewed in PART 2, risk behaviors among drug users occur between individuals and are influenced by the larger social context of social networks, family and friends, the immediate community, and the society as a whole. Although some individuals inject or use drugs by themselves, others use drugs in small groups in specific physical or social settings. The settings in which sexual activity and drug risk-taking occur can be closely related to users' social environment and participation in social networks.

Social- and community-level approaches to behavior and behavior change address the behavioral risk of individuals in the context of their personal networks and social environments. Although there is no existing synthesis of social-level theories, the Institute of Medicine convened a workshop in 1995 to begin to look at the research and program contributions of a broad set of approaches and models (IOM, 1995). Table 3.3 briefly describes four social-level approaches that emerged from the workshop.

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**Table 3.3:**  
**Social-Level Approaches**

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<b>Diffusion Theory</b>	Focuses on the processes by which an idea or practice is spread throughout a social system from person to person by way of particular channels of communication.
<b>Leadership Models</b>	Considers how naturally occurring leaders within groups can be encouraged to exhibit and communicate about an innovation or practice to their peers and the people they influence.
<b>Social Movement/ Community Mobilization Theory</b>	Describes how a culture's institutions, experiences, or characteristics can be changed by social movements begun by members of that culture.
<b>Social Network Theory</b>	Focuses on the relationships or interactions between two or more people or the linkages among people in a given group.

*Source: IOM, 1995*

## Harm reduction approach

Another widely discussed concept, the “harm reduction approach,” focuses on IDUs and their behaviors related to sharing injection equipment. Harm reduction acknowledges that drug users vary in their readiness and ability to abstain from drug use totally (Des Jarlais et al., 1993). This approach suggests that, based on the ways in which HIV is transmitted, some ways of engaging in drug use may be less prone to viral transmission than are others. Advocates of harm reduction propose multiple complementary solutions that operate simultaneously, including drug abuse treatment, non-injection of drugs, and providing sterile injection equipment and/or materials to disinfect used equipment.<sup>1</sup>

## Using Theory to Plan and Design Effective Interventions

To help prevention planners and program managers to achieve a more practical understanding of the use of behavioral theory, the following section provides concrete examples of how the theoretical approaches can form the basis for effective behavioral interventions. In addition, Appendix B of the *HPDU Resource Book* summarizes resources that address behavioral research and the underlying theoretical basis for behavioral interventions with drug-using populations. Reviewing these resources will give prevention planners and program managers a more comprehensive understanding of how to assess and design more effective interventions.

### The AIDS Community Demonstration Projects

Exhibit F illustrates how various theoretical approaches to behavior change can be used to design effective interventions for drug users. The CDC-funded AIDS Community Demonstration Projects (ACDP) were community-level HIV prevention programs targeting several ethnically diverse, high-risk, hard-to-reach populations, including drug users (CDC, 1996). Using a common research and intervention protocol, researchers in five cities designed and implemented a theory-based community intervention that incorporated elements of the Health Belief Model, the Social Cognitive Theory, and the Theory of Reasoned Action. More specifically, the theoretical premise of the intervention assumed that four factors may influence an individual’s intentions and behaviors:

- *the individual’s perception that he/she is personally susceptible to acquiring HIV disease*
- *the individual’s attitude toward performing a low-risk behavior (e.g., consistent condom*

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1. The harm reduction approach is discussed in more detail in PART 4: PUBLIC POLICY ISSUES.

*or bleach use), which is dependent on his/her beliefs about the positive and negative consequences of engaging in the low-risk behavior (expected outcomes)*

- the individual's perception that the community and peer norms toward low-risk behaviors are positively changing and thus support his/her effort to change (perceived social norms)*
- the individual's belief that he/she can effectively perform low-risk behaviors under a variety of circumstances (self-efficacy)*

In addition, the theoretical framework of ACDP included the Transtheoretical Model by recognizing that the individuals in the intervention would be at different stages of behavior change and thus would require different intervention approaches.

In laying out the theoretical framework for the interventions, the planners acknowledged the importance of barriers to behavior change, or environmental constraints. That is, for example, people might not be able to act on their intentions if condoms and sterile injection equipment were not available, readily accessible, or affordable.

## **Interventions using the social-level approach to behavior change**

As reviewed earlier, social-level approaches include diffusion theory, leadership-focused models, social network theory, and social movement/community mobilization theory. Several interventions for drug-using populations have used principles of diffusion theory in which material or new practices are spread to the members of a social system through person-to-person channels. For example, one outreach program in San Francisco used a word-of-mouth educational program for drug injectors that promoted the use of bleach to decontaminate syringes. The program grew to include the distribution of bleach by outreach workers, who facilitated the dissemination and acceptance of the innovation (Institute of Medicine, 1995).

Leadership models encourage naturally occurring group “leaders” to model and talk about a new practice to their peers. Since the practice may depart from the group’s established social norms, these models often rely on making risk-reduction strategies socially acceptable, or normative, within the target population. The National AIDS Demonstration Research/AIDS Targeted Outreach Model (NADR/ATOM) projects used this behavioral theory in the naturally occurring social structure of injecting drug users. In one of the projects, ex-addicts, under the supervision of trained ethnographers, conducted outreach to injection drug users not in treatment. Specific efforts were made to enroll influential persons (“indigenous leaders”) within drug-using networks into the project, and have them act to influence other injection drug users to practice safer injection (Wiebel et al., 1996; Wiebel, 1993).

# CDC's AIDS Community Demonstration Projects

## Theoretical Approaches:

### Factors Influencing Individual Behavior

*Perceived susceptibility to acquiring HIV disease*

*Perceived positive and negative outcomes*

*Perceived supportive community and peer norms*

*Perceived self-efficacy*

*Environmental Constraints*

## Program Activities:

Distribution of small media material (newsletters, brochures, pamphlets, flyers or baseball cards) that included:

- Role model stories or authentic stories in target group language that described a person's motivation for considering or initiating behavior change, the type of change begun, how barriers to change were overcome, and that reinforced positive consequences of change
- AIDS information
- Instructions on the effective use of condoms or bleach to clean needles
- Biographies of community members participating in the project
- Notices of community events
- Information on other health and social services (e.g., food provision, mammogram screening, drug and alcohol treatment)

Provision of free condoms and bleach

### Stages of Behavior Change

Distribution of role model stories in the community that were designed to address the stage of behavior change of the target group (community members' stage of change was assessed before development and distribution of role model stories)

### Social-Level Approaches (e.g. Diffusion Theory and Leadership Models)

Use of peer volunteers from the local community who were trained to reinforce acceptance of, and attention to, the intervention messages, as well as attempts to change behavior

Social network theory focuses on the social networks of drug users as a unit of intervention to reduce risky behaviors and infection levels.<sup>2</sup> Knowledge of existing social networks within a community can help determine the most effective channels of communication among network members and identify key “gatekeepers” to act as a main link to the network’s membership. One example of the use of social network theory is an HIV prevention intervention in Baltimore, in which injection drug users were asked to recruit members of their networks to attend a multi-session workshop on HIV prevention and to take part in a group discussion and decision on how the intervention would address the issues of HIV and AIDS. They also discussed ways that the intervention could support individual members’ decisions to alter their risk behaviors (Latkin et al., 1995).

Social movement/community mobilization theory describes how social movements initiated by members of the community change that community’s representations, institutions, or experiences. This is an important strategy because local involvement is needed to implement changes necessary for improving the health of the community. This theory was used in one of the NADR projects that promoted “self-organization” among injecting drug users. Outreach workers recruited IDUs and assisted them to develop self-help groups to address HIV transmission and other issues of importance to them. Participants held regular group meetings to discuss how they could change peer norms about injection and sexual risk behaviors (Friedman et al., 1993). This theory was also used in an intervention in Baltimore that built on the power and influence of a community-based publication. For a number of years, Street Voice, a drug-users’ organization composed primarily of African Americans, has published a street newsletter. The newsletter was used as an intervention vehicle to discuss HIV-related issues and changes in local treatment programs or welfare rules, and to share articles in which users talked about their lives (Institute of Medicine, 1995).

## **Interventions that use the harm reduction approach**

Syringe exchange is the standard harm reduction method for preventing HIV infection among IDUs. In these programs, IDUs can exchange their used needles and syringes for new, sterile injection equipment at no cost. By collecting the used injection equipment, syringe exchange program managers also provide for safe disposal of potentially HIV-contaminated equipment. Because the exchange is conducted in person, the program can also deliver other services to IDUs. Syringe exchange programs typically provide AIDS education and counseling, distribute condoms (to prevent sexual transmission of HIV), make referrals to drug abuse treatment and other medical and social services, and distribute bleach for disinfecting injection equipment and/or alcohol swabs to reduce the likelihood of IDUs developing abscesses and other infections. They vary in their location (fixed versus “roving” sites), hours of operation,

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2. Social networks are described in greater detail in PART 2: DRUG USE, SEXUAL BEHAVIOR, AND HIV RISK, in the section entitled “Social Contexts that Increase HIV Risk.”



and the number of syringes allowed for exchange. It is estimated that over 100 syringe exchange programs have been implemented nationwide (Vlahov, 1997).

## Designing HIV Prevention Interventions

Once prevention planners and program managers decide that an intervention is necessary to meet identified community prevention needs, the specific features of the interventions must be determined. It is not sufficient to simply refer to “distribution of condoms and bleach” in describing a planned intervention. More specific information is needed on where, to whom, by whom, over what period of time, and under what circumstances an intervention will be delivered. Specifying the key features of the intervention is useful for a number of reasons. First, it allows prevention planners to more clearly communicate the types of priority interventions that they are recommending to prevention service providers, and it helps providers more clearly design interventions and implement them as planned. Thinking through the details also helps providers apply elements of behavioral and social science research and theory where useful in designing specific interventions.

Making decisions about the key features and describing the program in this way can also be strategically useful if a program intends to get support, or continue to get support, from outside funders and the community. Finally, a systematic description encourages a thorough implementation of the intervention, allows for replication of the intervention for other groups or communities, and provides a structure to design and carry out process and outcome evaluations.

## Deciding on the Features of Interventions

Interventions for drug-using populations generally fall into one of three major categories: counseling, testing, referral, and partner notification (CTRPN); health education/risk reduction (HE/RR); and health communication/public information (HC/PI). Earlier materials developed by CDC for community planning groups described a taxonomy or classification system based on these categories.<sup>3</sup> This taxonomy can help planners and managers develop a common terminology and differentiate types of interventions. Exhibit G builds on this taxonomy and presents information on the key features of interventions that prevention planners and program managers need to consider. It is organized around four basic questions:

- *Who is being targeted?*
- *What is the proposed intervention?*
- *Where is the intervention being delivered?*
- *How is the intervention being delivered?*

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3. See *What Intervention Studies Say About Effectiveness, A Resource for HIV Prevention Community Planning Groups* AED, 1995. Information on how to obtain this document can be found in PART 5: RESOURCES.

# Features of HIV Prevention Interventions

## Who Is being targeted?

Feature	Description
<i>Race/ethnicity</i>	Describe the racial/ethnic background of the target group(s).
<i>Other characteristics</i>	Describe other demographic characteristics of the target group(s), such as adolescent vs. adult, in-school vs. out-of-school, homeless, mentally ill, female vs. male, MSM, sex industry workers, inmates, parolees, immigrants.
<i>Geographic</i>	Describe the section or neighborhood of the city where the target group(s) are located.
<i>General risk behaviors and stage of behavior change</i>	Describe the general risk behaviors of the target group(s), such as sexual behaviors, injecting drug use, crack use, and their general readiness for behavior change (see Table 3.2: Stages of Behavior Change).

## What is the proposed intervention?

Feature	Description
<i>Level</i>	Describe whether the intervention will be delivered at the individual, couples, group, street and/or community, or general public level.
<i>Behavioral objectives</i>	Describe what risk behaviors the intervention expects to change and the direction of this change (e.g., increased cleaning of injection equipment, reduced number of needle-sharing partners, increased use of condoms).
<i>Factors expected to affect risk behavior(s)</i>	Describe theoretical factors that will need to be addressed to affect the behavioral objectives of the intervention, such as addressing the target group's intentions, skills, perceived self-efficacy, and supportive community and peer norms, and the barriers and expected outcomes (see Table 3.1: Eight Common Theoretical Factors).
<i>Services, materials, and information</i>	Describe the services, materials, and other information that will be delivered in the interventions, such as HIV counseling and testing, case management, peer outreach, skills training, condoms, bleach kits, and/or educational pamphlets.

# Features of HIV Prevention Interventions (continued)

## Where is the intervention being delivered?

Feature	Description
<i>Institutional</i>	Describe whether the intervention will be delivered in a school, prison, hospital, STD clinic, drug treatment program, or other institutional setting.
<i>Street</i>	Describe whether the intervention will be delivered in the streets or corner of a street in a high drug-use area, a crack house, park areas where MSM cruise, or another informal settings where high-risk behaviors are performed.
<i>Community</i>	Describe whether the intervention will be delivered in a community-based organization, store front, mobile van, bar, or another community setting or settings (e.g., such as the multiple community settings of a media intervention).

## How is the intervention being delivered?

Feature	Description
<i>Persons delivering intervention</i>	Describe whether the intervention will be delivered by peers, community volunteers, health professionals, or other types of individuals.
<i>Visibility of the intervention to the target group(s)</i>	Describe how the target group(s) for the intervention will learn about its services, such as through various types of media in the community or through formal or informal outreach on the street or with related agencies.
<i>Frequency/ duration</i>	Describe whether the frequency of the intervention will be one-time only, periodic, or ongoing, and whether the duration of the intervention will be minutes, hours, days, weeks, and/or years.
<i>Scale and significance</i>	Describe how many members of the target group(s) will be reached by the intervention and, if possible, whether this size is sufficient to make a measurable contribution to influencing the epidemic.
<i>Contextual factors</i>	Describe any contextual factors that will influence how the intervention is delivered, such as the type or level of drug use, the physiologic or mental state of the target group(s), and the competing needs for food, shelter, health care, employment, and protection from violence.
<i>Extent of coordination</i>	Describe the extent of coordination between the intervention and services of other agencies in the area and what the effect of other HIV prevention interventions will be on the implementation of the proposed intervention.

## Who will receive the intervention?

Prevention planners and program managers need to understand and describe who will receive the intervention. This includes addressing certain key features of the target group, such as their **racial/ethnic background**; their other **defining characteristics** (e.g., gender, age, overlap with other at-risk populations such as drug users who are MSM, homeless, mentally ill, sex industry workers, immigrants, or prison inmates or parolees); their **geographical location** (e.g., section or neighborhood in the community); and their **general risk for HIV infection** (e.g., unprotected sex with many partners, injection drug use, crack use). A target group can also be described in terms of its general readiness for behavior change, or its **stage of behavior change**. The stage of change could refer to the stage of drug use behavior (e.g., initiation, maintenance, risk reduction, relapse) or stage of behavior change as described in Table 3.2 (i.e., precontemplation, contemplation, preparation, action, maintenance).

## What is the proposed intervention?

Planners and program managers need to address key features of the intervention itself. This includes the **level** at which the intervention will be targeted, which may be at the individual, couple, group/social network, community, or general public level. For example, counseling, testing, and referral interventions for the drug-using population most often target individual drug users. Health education and risk reduction efforts generally target drug users' social networks or the community.

It is important to clearly specify the **behavioral objectives** of the intervention. Which drug-using and sexual risk behaviors are targeted for change? For injection drug-using populations, these behaviors might include the frequency of injection, sharing of injection equipment, needle sharing, type of drug injected, mode of drug use, type of sexual activities and partners, and number of sex partners. Behavioral objectives for non-injectors might include high-risk sexual activities associated with the exchange of sex for crack or money to buy crack.

What **factors are expected to affect the risk behaviors** of the target population? Some interventions attempt to improve skills at cleaning equipment or using condoms. Others address barriers to obtaining clean needles and condoms. Because risk taking occurs in the context of social relationships, factors such as perceived peer and community norms are important. Behavioral and social science theories will inform and enrich the decisions about how to influence risk behaviors.

Interventions also provide different **services, materials, or information**. A program manager will need to determine the types of activities, written documents, and other materials to deliver to achieve intervention outcomes. These can include HIV counseling and testing, partner notification, client case management, STD and TB treatment, referrals for drug treatment or other health and social services, HIV/AIDS education workshops or video presentations, support groups, and distribution of written educational materials or injection equipment. Here again, consideration may be given to where the individual, group, network, or community is on the continuum of change for a particular behavior.

### **Where is the intervention being delivered?**

The settings and locations where behavioral interventions are delivered for drug users vary considerably. Some interventions are delivered in **institutional settings**, such as STD clinics, community-based organizations, store fronts, health vans, or other more formal settings. Other interventions are **street-based**, where drug users hang out or use drugs (e.g., street corners, shooting galleries, crack houses). Still others are community-wide, for example, a media campaign that delivers the prevention messages in multiple locations in the community. Some interventions may even use **multiple settings**, such as a program that does both street outreach and conducts other services in an institutional setting. The delivery setting is a key feature of intervention design.

### **How is the intervention being delivered?**

This question covers a range of important implementation decisions. One key feature related to this issue is the **person(s) delivering the intervention** or the individuals responsible for the delivery of specific services, information, or materials. These could include peers, indigenous workers from the community, community volunteers, and health professionals or paraprofessionals. Research has shown that respected peers in the drug users' social network or community are often effective deliverers of services (Wiebel et al., 1996; Des Jarlais et al., 1993). This is partly due to the illicit behaviors engaged in by drug users and their distrust toward "outsiders" and institutional authority figures, equipment, and police and correctional officer confiscation of condoms from inmates and sex workers).

Another key feature related to how the intervention will be delivered is the **visibility of the intervention** to the target group. In order for an intervention to affect the target group, the group must be aware of its existence and have an appreciation of how the intervention services can address its needs. This can be accomplished through multiple methods, such as the use of local media (radio, newspapers), outreach to other services agencies that serve the target group, and outreach directly to the population.

The **frequency and duration** of the intervention are key to program delivery. Programs can be either one-time only, periodic (e.g., once a week for five weeks), or ongoing. They can be as short as a few minutes or as long as hours or days. Programs for drug users have used different time periods and levels of intensity in order to respond to the varied lifestyles and circumstances of drug users. One-time, short outreach interventions are often conducted with drug users on the street. Periodic, moderately intensive HE/RR interventions often are conducted in community-based organization environments. Ongoing, more intensive interventions with drug users have been implemented in long-term treatment programs.

To demonstrate the potential impact of a proposed intervention, prevention planners and program managers need to describe its **scale and significance**. This includes the number of target group members the intervention intends to reach, and, if possible, whether or not the projected target group size will be sufficient to make a measurable impact on the epidemic.

**Contextual factors** may need to be considered in the delivery of an intervention to a particular population. Work with drug-using populations in particular requires awareness of important contextual issues, such as type of drug used; health problems and health status of the target population; the competing needs for food, shelter, health care, employment, and protection from violence; HIV serostatus/prevalence of those in their network, including sexual and needle-sharing partners; and legal/institutional issues that affect availability and access to services, information, and materials (e.g., local laws and policy issues related to needle exchange, over-the-counter sale of syringes, possession of sterile needles and equipment, and police and correctional officer confiscation of condoms from inmates and sex workers).

Finally, an important feature in intervention planning and delivery is the **extent of coordination** between the intervention and the services of other agencies in the area. Drug users have multiple needs, depending on their physiological and mental states and personal resources. To strengthen the delivery of needed services and to avoid duplication of effort, HIV prevention programs should be well coordinated with other agencies that can respond to these multiple needs and be aware of how other HIV prevention services in the area can effect program implementation.

Exhibit H illustrates how prevention planners in the National Institute on Drug Abuse addressed these key features when planning the HIV Counseling and Education Intervention Model, an intervention designed and developed to influence the risk behaviors of drug users and their partners (Coyle, 1993).

# Features of the NIDA Intervention Model

Feature	Description
<i>Taxonomy Category</i>	Counseling, Testing, Referral, and Partner Notification
<i>Target Population</i>	Out-of-treatment, adult, injection drug users and their sex partners; most were African American and Latino, and located in a specific neighborhood of a city; readiness for behavior change of drug users and partners was not assessed
<i>Level</i>	Individual
<i>Behavioral Objective(s)</i>	Decreased drug-use and sexual risk behaviors
<i>Factors Affecting Risk Behaviors</i>	Knowledge of HIV and AIDS transmission Perceived vulnerability to acquiring HIV Perceived self-efficacy with correct condom use Perceived outcomes of behavior change Accessibility of condoms and bleach Perceived peer and community norms
<i>Services, Materials, and Information</i>	Education and risk reduction counseling HIV screening Free condoms and bleach Written materials about HIV transmission and HIV-related facilities and services
<i>Setting</i>	Two mobile vans situated in high-need areas of the targeted neighborhood
<i>Person(s) Delivering Intervention</i>	Community paraprofessional educator-counselors Medically trained staff member (for HIV screening)
<i>Visibility of Intervention</i>	Outreach staff of both sexes who reflected the makeup of the neighborhood distributed materials on the program and services to other agencies and through one-on-one contact
<i>Frequency/Duration</i>	Two 20-30 minute sessions over two to three weeks (moderate intensity)
<i>Scale and Significance</i>	Approximately 1,000 of the estimated 5,000 target group members were reached
<i>Contextual Factors</i>	Services delivered were partly dependent on the context of the client's HIV status; seronegative participants received education, counseling, and referrals; seropositive participants received these services plus medical and treatment counseling
<i>Extent of Coordination</i>	Formal and informal coordination and referral contracts developed with eight other service agencies in the targeted neighborhood

# Using the Results of Evaluation Research

The purpose of this section is to provide HIV prevention planners and program managers with results of evaluation research on the general characteristics of effective HIV prevention programs and, more specifically, on interventions that have been shown to be effective at reducing sexual and drug-use risk behaviors among drug-using populations. A mounting body of scientific evidence generated from evaluation research has shown that lasting changes in risky behavior can occur as a result of well-designed interventions.

## General Characteristics of Effective Prevention Programs

Behavioral science research has been used to design effective prevention programs in areas such as teen pregnancy, smoking cessation, and substance abuse, as well as in HIV prevention. The results of this research, including that of HIV researchers, (Holtgrave et al., 1995; Choi et al., 1994; Kelly, 1992; Stryker et al., 1995; Janz et al., 1996) has helped identify some general characteristics of effective HIV prevention programs to consider during program design. The more characteristics an intervention integrates into a program, the stronger the chance for effectiveness. Exhibit I on the facing page presents these characteristics.



# Effective HIV Prevention Programs

**Behavioral research has identified these characteristics of effective programs:**

- are designed according to the results of a comprehensive needs assessment, including an identification of target group members' level of motivation to change risk behaviors
- are affordable and easy to access by the target population served and are able to respond to other expressed needs of the community
- are culturally competent, relevant to the targeted population (i.e., consistent with norms, attitudes, beliefs and attitudes), and include members of the target population in program planning and implementation
- have clearly defined target group(s), interventions and program components, and objectives
- focus on behavioral skills, which include how to carry out low-risk, safer behaviors as well as how to avoid and cope with high-risk situations
- do not provide messages that are judgmental, moralistic, or attempt to instill fear
- have ample duration and intensity to achieve lasting behavior change, and provide support and skills necessary to cope with lapses and setbacks in maintaining safe behaviors
- address the social and community norms of the target population so that program participants receive consistent messages and reinforcement for the prescribed behavior change
- are offered to the target group as part of a continuum of health care (e.g., drug and alcohol treatment, STD treatment, family planning, other health services)
- address other basic needs of the targeted population (e.g., housing, food) in order for HIV prevention to be considered a priority
- are regularly monitored to assure implementation is according to plan and that outcomes are being met

# Studies That Evaluate the Effectiveness of HIV Prevention Interventions for Drug Users

In addition to findings about the general characteristics of effective programs, a body of research exists that examines the effectiveness of specific interventions conducted with drug users and their partners. This section provides an overview of selected evaluation studies from the peer-reviewed literature and more general resource materials (books, monographs, journal articles) chosen for their focus on effectiveness and their usefulness to community planners and program managers. More complete descriptions of the materials are contained in Appendices A and B of this document.

Appendix A contains summaries of 13 evaluation studies of interventions selected from the peer-reviewed journal literature. Each has been summarized using a standard Evaluation Study Summary Form designed to address the needs of prevention planners. Nine of the summaries are also included in the document, *What Intervention Studies Say About Effectiveness: A Resource for HIV Prevention Community Planning Groups* (AED, 1996). Four more have been added to take advantage of new findings and ensure a variety of settings and drug-using populations. These summaries do not represent all studies on intervention effectiveness with drug users. Rather, they are intended to provide a range of current and quality research relevant to the needs of HIV prevention planners and program managers.

On the following page, Table 3.4 provides a guide to the Evaluation Study Summaries included in Appendix A. The table lists the citation, target populations, and type of intervention for each article included.

Appendix B contains descriptions of additional resources with a focus on effectiveness, including books, book chapters, monographs, and journal articles. These materials offer a broad range of comprehensive information on interventions for drug users and their partners. For example, one book discusses the effectiveness of a range of interventions conducted with drug users and their sex partners (Sorensen, 1991). A chapter in another book addresses interventions conducted with drug users in natural settings (as opposed to drug treatment settings) and their effectiveness (Watters, in DiClemente et al., 1994). A second chapter discusses the effectiveness of interventions for sex partners of HIV-infected or high-risk individuals, with special attention given to partner notification and HIV antibody testing and counseling programs (Padian, in DiClemente et al., 1994). Another important resource is the National Research Council's Congressionally-commissioned national study on the effectiveness of needle exchange and bleach distribution programs (Normand et al., 1995).

**Table 3.4:**  
**Guide to Evaluation Study Summaries**

<b>Article Citation</b>	<b>Target Population</b>	<b>Type of Intervention</b>
<i>Calsyn et al., 1992</i>	Male IDUs	Institutional-based (outpatient drug abuse treatment), condom distribution and instruction
<i>Des Jarlais et al., 1992</i>	Adult intranasal heroin users	Group-level, peer-mediated counseling
<i>El-Bassel et al., 1995</i>	Adult women with history of drug use	Institutional-based (prison), group-level, non-peer mediated counseling
<i>Latkin et al., 1996</i>	Networks of IDUs	Group-level, peer-mediated training
<i>Malow et al., 1994</i>	Male African American IDUs and cocaine users	Institutional-based (inpatient drug abuse treatment), group-level counseling, non-peer mediated training
<i>Nyamathi et al., 1994</i>	Hispanic women who are homeless and drug-using	Group-level counseling, peer-mediated training
<i>Reitmeijer et al., 1996</i>	IDUs	Community-level, peer and non-peer street and community outreach
<i>St. Lawrence et al., 1995</i>	Substance dependent adolescents	Group-level, non-peer mediated skill training
<i>Schilling et al., 1991</i>	African American and Hispanic female drug users	Group-level counseling, non-peer mediated in methadone maintenance program
<i>Siegal et al., 1995</i>	Out-of-treatment, HIV seronegative IDUs	Individual and group-level counseling, non-peer mediated
<i>Sorensen et al., 1994</i>	Adult IDUs	Community and street outreach, group-level, non-peer mediated counseling in outpatient treatment program
<i>Stephens et al., 1991</i>	Out-of-treatment IDUs	Individual-level counseling, non-peer mediated
<i>Watters et al., 1994</i>	Active IDUs	Community and street outreach, syringe exchange

# Key Questions for HIV Prevention Planners and Program Managers

The following key questions may help HIV Prevention Community Planning Groups and program managers select or design a more effective prevention program for drug users and their sex partners:

- Did you consider the theoretical basis for the proposed intervention? Which theoretical approaches and factors did you use in selecting or developing the intervention?
- What are the key features of the intervention selected? Are you able to answer the four basic questions in Exhibit B?
- Did you consider the general characteristics of effective HIV prevention programs in selecting or developing the intervention? Which did you use in the proposed intervention?
- Did you look for and find research on the effectiveness of interventions for target populations similar to group(s) you are targeting? If available, did you use the results in selecting or designing a proposed intervention?

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# **4 PUBLIC POLICY ISSUES**

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## **4-2 Community Attitudes and Beliefs**

- 4-2 Beliefs about Drug Use
- 4-4 The Importance of Community Attitudes Regarding HIV Prevention Interventions

## **4-6 Laws, Regulations, and Practices**

- 4-7 Prescription and Paraphernalia Laws
- 4-8 Attitudes and Practices of Law Enforcement Officers and Pharmacists
- 4-10 Confidentiality and Mandatory Reporting

## **4-12 Agency Policies and Practices**

- 4-12 Abstinence-Based Drug Treatment Programs and HIV Risk Reduction
- 4-13 AIDS Service Organizations
- 4-14 The Criminal Justice System
- 4-14 Improving Cooperation Among Programs Serving Drug Users

## **4-18 Key Questions for HIV Prevention Planners and Program Managers**

## **4-19 References**

# PUBLIC POLICY ISSUES

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Long-standing conflicts in society's attitudes and beliefs related to drug use and sexual behavior heavily influence the policy and program environment in which HIV prevention programs are delivered. During the 20th century, government's dominant approach to drug use has been one of reducing access through interdiction and incarceration. In developing HIV prevention efforts, planners and program managers must balance the need for programs that are effective in reducing the spread of HIV with initiatives that are tolerated and supported by the community at large, that provide for confidentiality, and that conform to federal, state, and local regulations and practices.

PART 4 of the *HPDU Resource Book* is intended to help prevention planners and program managers appreciate the complexity of the policy debates surrounding HIV prevention for drug users and their sex partners by highlighting some of the issues that they may face in their communities. Specifically, PART 4 will help HIV prevention planners and program managers increase their knowledge of:

- *the impact of community attitudes and beliefs on the design and delivery of HIV prevention programs for drug users and their sex partners*
- *the influence of laws, regulations, and practices on HIV prevention efforts*
- *how agency policies and practices influence the nature of HIV prevention among drug users within a community*

## Community Attitudes and Beliefs

### Beliefs About Drug Use

Drug use is generally viewed as bad for individuals and for society. Over the last 20 years, criminal penalties for the sale and possession of drugs have increased as part of what political leaders refer to as the “war on drugs.” The growing intolerance of drug use and fear of drug users have been accompanied by an increasingly heated debate about programs that provide treatment and other health care services for drug users. The approaches taken with HIV prevention activities are often a central element of that debate.

People may agree that there is a need for HIV prevention activities, but disagree about their goals and methods. They also may disagree about who should have the final authority in choosing which prevention methods to use. The core of most debate about prevention methods is whether an “abstinence-based approach” or a “risk-reduction approach” is most effective.

Abstinence-based approaches to HIV prevention stress methods such as admission to a drug treatment program to help individuals. Abstinence-based approaches oppose interventions such as bleach distribution, syringe exchange, and increasing access to over-the-counter sale of syringes, since these methods are not directly linked to stopping drug use and may appear to encourage drug use.

Risk reduction (also referred to as “harm reduction”) approaches emphasize that most drug users are unable or unwilling to stop drug use immediately and completely; that there are limited drug treatment program “slots” available; that many drug users cannot stop drug use even when they are enrolled in drug treatment programs; and that many of the drug users who are able to stop using drugs may relapse. Risk reduction approaches emphasize a variety of interventions with drug users, particularly those who continue to use. These interventions include providing access to sterile syringes through over-the-counter sale from pharmacies and syringe exchange programs; stressing never sharing syringes, water, or drug preparation equipment; emphasizing bleach disinfection for drug users who do not have sterile syringes; providing alcohol swabs to clean injection sites to reduce the occurrence of abscesses; and offering hepatitis B and other vaccinations to active drug users.

Views on the best approaches to deal with HIV prevention among IDUs vary dramatically at both the community and national level. Case Example 4.1 highlights some viewpoints on the appropriateness of HIV prevention activities.

### Case Example 4.1

## Opposing Views on HIV Prevention Approaches

“Our gains against drug use have been hard-won, and this is no time to jeopardize them by instituting needle exchange programs. Despite all the arguments made by proponents of needle exchange, there is no getting around the fact that distributing needles facilitates drug use and ***undercuts the credibility of society’s message that using drugs is illegal and morally wrong.***”

*Source: Martinez, 1992.*

“The predominant policy approach has characterized drug use as a criminal rather than a public health problem....Those who find it impossible to stop using drugs, or relapse following a period of abstinence from drugs, ***must be encouraged to practice safer sex and safer drug use and must be taught how to do so.***....Legal barriers to the purchase and possession of injection equipment should be removed. Legal barriers...limit the availability of new, clean injection equipment, thereby encouraging the sharing of injection equipment, and the increase in HIV transmission.”

*Source: National Commission on AIDS, 1991.*

# The Importance of Community Attitudes Regarding HIV Prevention Interventions

The HIV epidemic has had a disproportionate impact on certain communities, particularly minority communities. In some communities, such as youth, the rapidly growing impact of HIV infection portends an important future public health concern. A broad range of HIV prevention efforts have been launched to respond to this situation, and communities have differed in their reactions. Even within communities, opinions and support can vary widely. For example, some African American leaders believe that HIV has been deliberately introduced into the African American community as a form of racial genocide and are suspicious of government prevention efforts (Thomas et al., 1993). At the same time, others support a full range of HIV prevention measures. This section of PART 4 provides two examples of differing attitudes toward HIV prevention efforts. They illustrate for prevention planners and program managers the fundamental importance of understanding the community's attitudes toward HIV prevention if successful interventions are to be implemented.

A study on syringe exchange in the U.S. and Canada conducted by the Institute for Health Policy Studies at the University of California, San Francisco, identified four major reasons for opposition expressed by African Americans to HIV risk reduction programs: (1) failure to provide adequate drug treatment; (2) failure by advocates of syringe exchange programs to meet with community leaders; (3) lack of recognition by those who advocate syringe exchange of the negative effects of the existing drug market and of drug use on communities of color; and (4) failure to explain how syringe exchange can help, in the long term, to curb the impact of drug use (Lurie et al., 1993).

In spite of skepticism expressed by some African American leaders, many others support a full range of HIV prevention measures. For instance, African American mayors in New York, Baltimore, New Haven, and Washington, DC, have publicly expressed their support for HIV risk reduction programs that incorporate access to sterile injection equipment (Lurie et al., 1993). Joining in this support for HIV risk reduction efforts are a number of African American-operated HIV prevention agencies, including, for example, the Black Coalition on AIDS in San Francisco. Some religious leaders who initially supported only abstinence-oriented interventions have changed their position in the face of the ever-increasing number of people of color affected by HIV.

## ***An African American Leader Speaks Out in Defense of HIV Risk Reduction***

*"I'm one who spoke out very harshly against the distribution of condoms and the distribution of needles, saying that it's cooperation with evil....If it's going to save lives and it's going to allow for an arresting of this disease in our community so that people who have heart attacks and other ailments can get into the emergency rooms and be treated, then I think that these measures are not bad measures and lots of us are going to have to think real hard about how we oppose things that could stop this disease. In drastic times, you have to take drastic actions. My prayer is that our drastic actions will do enough quickly enough because too many people, homosexual, heterosexual, rich, poor, educated, non-educated, male and female are dying...."*

*Reverend Calvin Butts, Harlem, New York  
Source: Lurie et al.,1993.*

The second illustration shows the importance of community attitudes regarding HIV prevention programs for adolescents. Investigators now report that the average age of those diagnosed with AIDS has declined each year, and that an increasing number of adolescents are becoming infected with HIV (Rosenberg, 1994). Comprehensive studies have also made it clear that drug use plays an important role in HIV infection among adolescents. In fact, 23 percent of all cases of adolescents diagnosed with AIDS are directly attributable to injection drug use or to sex with individuals who inject drugs (CDC, 1995). NIDA's Monitoring the Future survey, an annual study of the prevalence of drug use among U.S. adolescents, indicates that drug use among 8th, 10th, and 12th graders increased in 1994, continuing the growth seen in 1993. Although the sharpest rises in drug use were for marijuana, other substances, such as cocaine, showed significant increases as well (Johnson et al., 1995).

The debate over what is an appropriate approach to HIV prevention among adolescents is heated. Community support for or opposition to educational programs about human sexuality and about drugs can be a critical element in the success or failure of an HIV prevention intervention. Case Example 4.2 illustrates the power of community opposition.

### **Case Example 4.2**

#### **Community Opposition to Condom Distribution in Schools**

The superintendent of public schools in a large northeastern city supported a program making condoms available in the city's high schools because of the high prevalence of sexually transmitted diseases, including HIV, among the city's adolescents. Strong parental opposition contributed to his dismissal and to the abrupt discontinuation of the program.

*Source: Blair et al.,1994.*

In other communities, however, parents and school officials have expressed strong support for a comprehensive approach to sex education for youth that includes equipping young people with knowledge and decision-making skills. In some communities, this includes support for efforts to make condoms available through school-based, school-wide, or district-wide health programs. Table 4.1 lists a number of cities where condoms are now available through school-based programs.

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**Table 4.1: Cities with School-Based Health Centers Offering Condom Availability Programs**

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*The Advocates for Youth (formerly the Center for Population Options, Washington, DC) estimate that condoms are now available to sexually active students in more than 100 school-based health clinics in the following communities:*

Little Rock, AR	Chicago, IL	Jackson, MS	Portland, OR
Culver City, CA	Boston, MA	Portsmouth, NH	Philadelphia, PA
Los Angeles, CA	Cambridge, MA	Espanola, NM	Dallas, TX
Miami, FL	Baltimore, MD	Taos, NM	Houston, TX
Quincy, FL	Readfield, ME	New York, NY	

*Source: Blair et al., 1994.*

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In addition to understanding community attitudes toward HIV prevention programs for adolescents, prevention planners and program managers need to have a thorough knowledge of the laws and regulations regarding HIV prevention activities for adolescents. These include the need for parental consent to administer medical care to minors except for those deemed “emancipated” by the courts. These youth have been legally released from the supervision of their parents. However, in every state there are now laws that permit minors to give their own consent for certain health services, which may include those related to STDs and other infectious diseases. Those states that consider HIV or AIDS either an infectious or sexually transmitted disease often permit adolescents to provide their own consent for receiving HIV prevention counseling and testing.

## Laws, Regulations, and Practices

As seen above with adolescents, the nature and scope of HIV prevention initiatives for drug users are shaped by various laws and regulations. This section examines some of the more important laws and regulations for prevention planners and program managers to consider when planning HIV prevention programs, including prescription and paraphernalia laws, regulations protecting the confidentiality of clients in drug treatment, and HIV and AIDS reporting requirements.

# Prescription and Paraphernalia Laws

These laws have been enacted primarily to discourage illicit drug use. They impose severe restrictions on the purchase and possession of equipment used to administer drugs.

- **Prescription laws** require that a person wishing to purchase syringes must have a valid medical prescription for syringes. In addition, some states require that syringe purchasers show identification and provide their name, address, and other identifying information. Prescription laws are now in force in nine states and the District of Columbia, as well as Puerto Rico. A number of counties within states also have prescription laws. In the states in which these laws are in effect, physicians are allowed to prescribe hypodermic equipment only for medical purposes, and pharmacists must keep records of the sale of all syringes and needles.
- **Paraphernalia laws** in 45 states make it illegal to distribute or possess equipment intended for injecting, smoking, or otherwise consuming illegal substances.

These and other laws, such as “drug-free zones” that prohibit persons convicted of a drug-related crime from entering certain locations during certain times of the day, are considered by many advocates of HIV risk reduction to be major barriers to obtaining and carrying sterile syringes. According to a report on syringe exchange by the Institute for Health Policy Studies, University of California, San Francisco, these laws contribute to continued syringe sharing reported among IDUs (Lurie et al., 1993). Many groups have called for the repeal of these laws, including the National Commission on AIDS and the National Research Council (National Commission on AIDS, 1991; Normand, et al., 1995), as well as the recent NIH Consensus Development Conference (NIH, 1997) and many communities have changed their laws. Case Example 4.3 provides a description of changes made in Connecticut’s laws. However, access to sterile syringes continues to evoke debate as states and communities review their policies in light of drug control and HIV prevention efforts.

## Case Example 4.3

### Changes in Connecticut’s Prescription and Paraphernalia Laws

In 1990, New Haven, Connecticut, instituted a needle exchange program. The program included a syringe tracking and testing system that was designed to monitor the extent of syringes exchanged and the presence of HIV in used needles. This system generated data from which an estimate of HIV transmission could be determined. These findings suggested that needle exchange reduced the HIV infection rate among injecting drug users in the community by 33 percent. In response, the Connecticut legislature continued funding the New Haven program, expanded services to two other cities, and legalized over-the-counter pharmacy sales and possession of syringes. It also led to educational programs for pharmacists and changes in prescription and paraphernalia laws that had restricted the purchase and possession of injecting equipment.

*Source: Normand et al., 1995*

# Attitudes and Practices of Law Enforcement Officers and Pharmacists

Both law enforcement officials and pharmacists are considered key “gatekeepers” who can influence the ability of drug users to obtain and possess sterile syringes. Because of their roles and responsibilities in enforcing prescription and paraphernalia laws, law enforcement officials and pharmacists often come into conflict with advocates of syringe exchange and other similar strategies to reduce the risk of HIV transmission among drug users. At the same time, they are among the professionals and community leaders who can make valuable contributions to the planning and implementation of community-wide HIV prevention efforts for IDUs. Effective community-based HIV prevention programs require their ongoing support and participation.

## Law enforcement officials

In general, law enforcement officials are considered to be “tough on drugs.” In addition to recognizing that many risk reduction measures, such as syringe exchange programs, are in violation of prescription and paraphernalia laws, many believe that these types of programs will result in: (1) a rise in the number of needles in circulation in a community; (2) an increase in crime and in other drug-related social ills; (3) an increase in the number of police officers receiving needle sticks; and (4) a decrease in the amount of attention devoted to addressing the underlying causes of addiction. Case Example 4.4 demonstrates the important role that the attitudes and behaviors of law enforcement personnel play in the use of sterile syringes by IDUs.

### Case Example 4.4

#### Fear of Arrest Prevents Sterile Syringe Possession

In a study conducted among 147 IDUs in Eastern Connecticut, only 30 percent reported that they normally carry syringes, primarily due to the fear of arrest. About 25 percent of drug-related arrests in this part of the state included drug-paraphernalia possession charges, in spite of the change in Connecticut law in 1992 to allow the legal possession of up to 10 syringes.

*Source: Grund et al., 1995.*



## Pharmacists

Pharmacists function as gatekeepers for IDUs to obtain syringes because they are a principal source of sterile syringes. For example, in Connecticut after the 1992 law change permitting the sale of up to 10 syringes without a medical prescription, over 80 percent of pharmacies sold nonprescription syringes and drug users reported significant increases in their purchase of syringes from a pharmacy. In states that have prescription laws, pharmacists have to be alert for falsified prescriptions. In some, pharmacists who knowingly sell syringes to customers for the purpose of injecting illicit drugs can have their licenses suspended.

Inconsistencies in practices among pharmacists are documented even in states where no prescription laws exist. In a 1991 study, for example, less than 15 percent of pharmacists surveyed in a southern state reported that they sold any syringes (Compton et al., 1992). The remainder said they sold syringes only to those with a prescription, even though one was not required. Many pharmacists reported requiring each customer purchasing a syringe to sign for it as an indication that the intended use was for legitimate medical reasons. Pharmacists' discretion over the sale of syringes may affect equal access among IDUs, even where laws do not specifically prohibit sales, as shown in Case Example 4.5.

### Case Example 4.5

#### Pharmacist Practices Related to the Sale of Syringes

The following results were reported from a study in which two male research assistants (one white, one African American) attempted to buy needles in 33 pharmacies:

- 58 percent sold to both research participants
- 18 percent informed participants they did not sell needles and syringes in small quantities
- 12 percent refused to sell to both purchasers
- 12 percent refused to sell to the African American only
- "store policy" was the reason cited most often for refusal to sell

*Source: Compton et al., 1992.*

The American Pharmaceutical Association has officially endorsed syringe exchange as a viable part of any comprehensive approach to HIV prevention that includes outreach, counseling, treatment, and community involvement in program design (Normand et al., 1995). The Association believes pharmacists are in a unique position to make a significant contribution to HIV prevention efforts by providing access to sterile syringes.

This position is not universal however, and debates regarding the appropriateness of various HIV risk reduction strategies occur. During a 1995 panel workshop on syringe exchange and bleach distribution programs sponsored by the National Research Council and the Institute of Medicine, the National Association of Chain Drug Stores (composed of pharmacy retailers) and the National Pharmaceutical Association (composed of professional pharmacists) expressed concern over: (1) disposal of used needles and syringes; (2) liability for occupational exposure of workers; (3) adherence to federal rules and regulations; (4) personal discretion; and (5) the high cost of complying with state and federal regulations (Normand et al., 1995).

## **Confidentiality and Mandatory Reporting**

A number of federal, state, and local laws have been enacted to protect the confidentiality of those receiving treatment for drug abuse, HIV, sexually transmitted diseases (STDs), and general medical or mental health problems. However, medical care providers are required by law to report to their state public health departments all cases of individuals diagnosed with AIDS, some STDs, tuberculosis, and other infectious diseases. All 50 states now require reporting of AIDS cases by name to the public health department, and 26 states require named reporting of those testing positive for HIV antibodies (CDC, 1995). Reporting drug use, however, is a different matter.

### **Confidentiality of Drug Abuse Treatment Patient Information**

In an effort to encourage participation in drug treatment programs, federal regulations that protect the identities of persons in alcohol and drug treatment were enacted in the early 1970s, implemented in 1975, and revised in 1987 by the Department of Health and Human Services (Title 42, Part 2, Code of Federal Regulations). Recently, Congress reaffirmed and reorganized the original statutes by merging them into Title 22 of the Public Health Service Act. This law ensures that strict federal confidentiality standards are in place for clients in treatment. It also prohibits the disclosure, except under limited conditions (see Table 4.2), of information about patients by programs receiving federal assistance that allows them to provide treatment, counseling, assessment, and referral services for people with drug problems.

All state and local laws that address the confidentiality of patients in drug treatment are superseded by this federal confidentiality law, unless state laws are more

restrictive. Although there are exceptions, even a court order is insufficient for disclosing information without prior notification of the program and the client. Drug treatment programs that offer on-site HIV antibody testing, therefore, may seem to face a dilemma of complying with required HIV/AIDS reporting and limiting disclosure of information about clients in drug treatment. However, this does not necessarily have to be the case. The law does not specifically prohibit the release of information about a client's HIV/AIDS status, even though the release of information that would directly or indirectly identify an individual as a drug treatment client is restricted. Table 4.2 lists those circumstances where disclosure of information about a patient's drug treatment is permitted.

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### **Table 4.2: Circumstances Permitting Disclosure of Drug Treatment Patient Information**

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**The General Rule:** The program may not disclose any information about any patient.

#### **Exceptions in Which Information May be Disclosed:**

- internal communications
- disclosure that contains no patient identifying information
- proper patient consent
- Qualified Service Organization Agreement
- medical emergency
- research/audit/evaluation
- court order
- crime on program premises or against program personnel
- need to report suspected child abuse and neglect

*Source: Legal Action Center.*

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## **Confidentiality and Protection against Discrimination of People Living with HIV/AIDS**

Since the early years of the AIDS epidemic, the social stigma and the threat of discrimination against persons with AIDS has been clearly recognized. Because of this discrimination, many states have passed special laws to protect against the unwarranted release of information about a person's HIV status. These laws are intended to promote fair treatment and make it more likely that persons at risk will accept HIV testing and early intervention.

In addition to these laws, broad protections against discrimination are provided by the 1990 Americans with Disabilities Act (ADA). The ADA prohibits discrimination in housing, public access, and employment against people who have or are perceived to have a disability. Under the act, those who are infected with HIV or diagnosed with AIDS are considered "people with disabilities."

The ADA requires drug treatment providers to make "reasonable accommodations" to ensure that individuals with HIV/AIDS can participate in and benefit from treatment services. Such accommodations include arranging home administration of methadone, reducing the number of required weekly therapeutic ses-

sions, and making special living arrangements in a residential setting in order to curb opportunities for exposure to infectious disease. In addition, the act makes it illegal to require HIV testing as a condition for admission to drug treatment.

## **Agency Policies and Practices**

The policies and practices of agencies serving drug users vary in relation to HIV prevention. For instance, drug treatment programs may be concerned that HIV education will undermine their messages about abstaining from drug use. Similarly correctional officers may be apprehensive about discussing safer sex or syringe disinfection since sexual behavior and drug use are prohibited within correctional institutions. These conflicting views often result in discontinuity of prevention services needed for drug users. HIV prevention planners and program managers must recognize that programs linking various service agencies need to be coordinated to ensure a comprehensive and consistent approach to HIV prevention among drug users. This section takes a closer look at some of the dynamics associated with differences among agency policies and practices.

## **Abstinence-Based Drug Treatment Programs and HIV Risk Reduction**

The purpose of most drug treatment programs is to help clients stop all drug use. Given that goal, many drug treatment programs have difficulty providing their clients with drug-related risk-reduction education and advice. Telling drug users that, if they relapse, they should use sterile syringes to mix and prepare drugs and never use a cooker or cotton after another drug user may appear to be tempting the recovering user to restart drug use. This conflict may exist even though the staff of the drug treatment program acknowledge that relapse is a real risk for clients.

For some treatment programs, educating clients on how to prevent the sexual transmission of HIV may seem unrelated to, or even in conflict with, their mission to help the person recover from drug dependence. This is particularly true if a program subscribes to the philosophy that individuals in the early stages of recovery should refrain from forming sexually-intimate relationships.

Abstinence-based treatment programs encourage clients to disclose what may be very personal information about their drug use and its consequences as a means to maintain their recovery. However, conflicts regarding confidentiality and the right to privacy may arise for clients who are HIV-infected. At the very outset of treatment, clients in such programs need to be fully apprised of the program's philosophy and expectations as well as be made aware of the measures that are in place to safeguard their rights regarding such personal matters as HIV status.

# AIDS Service Organizations

Although early in the epidemic, many AIDS Service Organizations (ASOs) focused their efforts on gay and bisexual men, a large number now conduct comprehensive prevention programs for injection and non-injection drug users. These include a range of activities, from one-on-one counseling to street outreach, syringe exchange, and community-wide initiatives.<sup>1</sup>

ASOs with HIV prevention programs may be an excellent source of information about high-risk drug users. These organizations may be able to supplement existing epidemiologic data with qualitative information based on research conducted during the design of programs. ASO personnel also may be able to provide insights about drug related behavior gained from many hours of direct observation.

Many ASOs have adopted risk reduction or “recovery readiness” programs that focus on reducing the individual drug user’s risk of contracting HIV rather than on requiring immediate participation in drug treatment programs. This approach recognizes the difficulty inherent in abstaining from drug use and the lack, in many communities, of adequate treatment facilities. Case Example 4.6 describes one such approach, the Gay Men’s Health Crisis (GMHC) “Steps Toward Change” program.

## Case Example 4.6

### “Steps Toward Change” A Harm Reduction Program in New York

As a community-based AIDS service organization, the Gay Men’s Health Crisis (GMHC) in New York City advocates the use of multiple approaches and interventions to address the many needs of their clients. Drawing on aspects of risk reduction, recovery readiness, and treatment approaches, GMHC created the “Steps Toward Change” model with the following goals:

- to work with the individual wherever he or she happens to be along the spectrum of drug use
- to avoid demanding that each individual be committed to a goal of abstinence
- to work with the individual to set his or her own priorities and timelines for action, rather than to assume that a particular hierarchy of issues has to be addressed
- to develop effective alcohol and other drug-related interventions and to integrate them into the ancillary mission of providing such support as health and social services

*Source: Gay Men’s Health Crisis, 1994.*

1. For information about ASOs that provide these services in specific communities, contact the CDC’s National AIDS Clearinghouse. PART 5: RESOURCES contains contact information for the Clearinghouse.

# **The Criminal Justice System**

The HIV/AIDS epidemic has had important implications for the criminal justice system, particularly in the northeast and other areas with high HIV seroprevalence among drug users. Yet, within the confines of the criminal justice system, traditional policies prohibiting sexual activity and drug use make it difficult for corrections staff to establish HIV prevention programs.

Despite these constraints, however, many have succeeded in developing constructive and dynamic HIV prevention programs. These programs serve not only those who are incarcerated, but also those who soon will be released into society. Many of these programs actively discuss safer sex practices, as well as procedures for disinfecting drug injection equipment. According to the National Institute of Justice, 86 percent of all U.S. federal and state prison systems, and 58 percent of all city/county correctional systems provided instructor-led AIDS education for inmates over the course of the previous year (DOJ, 1994). Currently, condoms are made available to inmates in the following six correctional systems: District of Columbia, Mississippi, Vermont, New York City, San Francisco, and Philadelphia. Several examples of collaborative efforts to develop and implement HIV prevention programs within correctional systems are described in Exhibit J.

## **Improving Cooperation Among Programs Serving Drug Users**

Drug injectors and persons using crack cocaine account for a major proportion of the HIV and AIDS cases in many parts of the United States, particularly the Northeast, South, and Puerto Rico (Johnson, Bassin, and Shaw, vol. I, 1995). If the spread of HIV among drug users, their sex partners and children is to be slowed, the organizations providing HIV prevention, drug treatment, medical and social services to drug users must cooperate.

Substantial barriers prevent agencies from working together, however. For example, substantial differences in philosophy and organizational culture among drug treatment, health department, and community-based programs often exist. In addition, the laws and regulations established to protect HIV-infected people in drug treatment from stigma and discrimination may make it more difficult for the organizations attempting to help these individuals to obtain or share basic information about the clients.

# Collaborative HIV Prevention Efforts in Correctional Systems

## Georgia

In collaboration with the state correctional authorities, the Georgia Division of Public Health, now provides a four-session HIV prevention education program for inmates in 20 state prisons. The program includes overviews of: AIDS and HIV; substance abuse, addiction and HIV (including a demonstration on bleach disinfection of injection equipment); and methods to reduce the risk of sexual transmission of HIV and other STDs. Program faculty include community health educators who are in recovery.

*Source: Hammett et al.,1995.*

## New York

In 1989, the AIDS Counseling and Education (ACE) Program was established by female inmates in New York's Bedford Hills Correctional Facility. The program was established because of inmates' fears of HIV transmission and concerns that HIV-infected inmates might be stigmatized. Inmates were selected as peer educators and received training and certification by the New York State Department of Education. Peer educators then took responsibility for training all inmates and correctional staff.

*Source: Hammett et al.,1995.*

## Rhode Island

A high percentage of persons in Rhode Island who have been diagnosed with HIV are in the state prison system. The Rhode Island Department of Health, in conjunction with the State Department of Corrections and the Brown University AIDS Program, instituted a program to improve the health of HIV-infected inmates, both during their incarceration and after their release. Services offered include HIV counseling and testing, medical management, substance abuse counseling and treatment, and discharge planning.

*Source: Hammett et al.,1995.*

Despite these barriers, prevention planners and program managers should promote interagency collaboration to foster more effective HIV prevention efforts. Examples include better collaboration between:

- *correctional institutions and the essential services that discharged inmates will need in the community (e.g., drug treatment, HIV prevention programs designed for parolees, housing, job preparedness)*
- *agencies addressing homelessness, mental illness, drug dependence, and HIV prevention for hard-to-reach populations*
- *school-based health clinics and health education programs that are working with youth at risk for drug use or HIV, and community-based organizations and religious organizations that are addressing prevention issues for youth*

For those involved in planning or implementing HIV prevention programs, the message is clear. To make community programs serving drug users and their sex partners the most effective, substantial efforts must be made to:

- *identify all the programs working with drug users in any capacity; bring them together so that philosophical and cultural differences can be identified and understood*
- *provide cross-training for the staff of the organizations that need to cooperate*
- *develop “structural” relationships (e.g., memoranda of understanding, qualified service organization agreements) that will facilitate cooperation*
- *identify ways to continually maintain and enhance established linkages*

Some examples of inter-agency efforts appear in Exhibit K.



# Inter-Agency HIV Prevention Efforts

## New York City

In 1992, the ADAPT program in New York City received a waiver from the state department of health to establish a syringe exchange program. Program staff members issued cards to injection drug users. The cards identified these individuals as registered participants of the needle exchange program. As such, any needles they obtained through the program were exempt from the prescription law. Staff members apprised and updated local law enforcement officials of program activities through reports and presentations. If an individual who was in possession of an illicit needle was apprehended, police could call the program staff to verify whether the drug user was registered in the program's personalized, computer numbering system.

*Source: Lurie et al., 1993.*

## San Francisco

The AIDS office of the San Francisco Department of Public Health (SFPDH), the San Francisco Unified School District, community-based organizations, and the religious community have put in place an extensive youth-centered collaborative to reach youth at risk for drug abuse, HIV infection, and other problems. The collaborative allows both in- and out-of-school youth to work as paid agency staff and volunteers in agencies that serve youth. A few examples include the placement of youth in Central City Hospitality House and Larkin Street Youth Centers to work with homeless and runaway youth, and the placement of Latino youth in the Real Alternatives Program. Community Substance Abuse Services, also a part of SFPDH, funds community-based organizations to provide substance abuse education in the schools.

*Source: Valerie Kegebein, MPH, Chief, HIV Prevention Planning, Policy and Health Education, AIDS Office, San Francisco Department of Public Health*

# Key Questions for HIV Prevention Planners and Program Managers

The following key questions related to PART 4 may be helpful in guiding HIV prevention planners and program managers as they plan, develop, implement, and support prevention programs for drug users and their sex partners:

- Who are the decision makers in your community whose support is needed to successfully implement HIV prevention programs for drug users?
- How might these community leaders' attitudes, beliefs, and values influence the support of various types of prevention interventions?
- Are there prescription requirements for the purchase of syringes or drug paraphernalia penalties for possession of syringes in your community? Do pharmacy regulations limit the ability of pharmacists to sell syringes to persons who may be drug users?
- Are drug users who are found in possession of syringes arrested and jailed or fined?
- Are drug treatment programs in your community receptive to "risk reduction" counseling for their clients?
- Which federal, state, and local laws and regulations may affect HIV prevention efforts in your area?
- What means are available to improve communication among service providers assisting drug users and still protect client privacy and the right to confidentiality?
- Is modification of existing state or local laws and regulations or agency policies and practices to enhance the effectiveness of HIV prevention programs an option?
- Are existing AIDS Service Organizations providing services to drug users?
- What kinds of existing HIV prevention programs are offered to drug users and staff in the jails, prisons, and other criminal justice agencies (e.g., juvenile facilities, probation and parole departments) in your community?
- Are staff of these programs serving on your state or local HIV Prevention Community Planning Group?
- Are persons in drug treatment or persons still actively using drugs serving on your state or local HIV Prevention Community Planning Group or involved in any way in prevention planning in your state or community?

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# **5** RESOURCES

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## **5-3 Federal Resources**

- 5-3 Centers for Disease Control and Prevention (CDC)
- 5-7 Substance Abuse and Mental Health Services Administration (SAMHSA)
- 5-10 National Library of Medicine (NLM)
- 5-12 Food and Drug Administration (FDA)
- 5-13 Health Resources and Services Administration (HRSA)
- 5-15 National Institute on Drug Abuse (NIDA)

## **5-17 National Resources**

- 5-17 American Foundation for AIDS Research (AmFAR)
- 5-18 Center for AIDS Prevention Studies (CAPS)
- 5-19 U.S. Conference of Mayors

## **5-20 State Resources**

- 5-20 National Alliance of State and Territorial AIDS Directors (NASTAD)
- 5-21 National Association of State Alcohol and Drug Abuse Directors (NASADAD)

## **5-22 Community Epidemiology Work Group**

## **5-23 Supplement to HIV/AIDS Surveillance (SHAS) Project**

## **5-24 Ordering Information for Documents Referenced in the *HPDU Resource Book***

# RESOURCES

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There are many sources of materials and information related to HIV and drug use that can be helpful to Community Planning Groups and others involved in HIV prevention efforts. However, knowing what resources are available and how to access those resources can sometimes be challenging.

PART 5 is designed to help HIV prevention planners and program managers identify available information resources related to HIV and drug use. Specifically, PART 5 will:

- *provide descriptions of federal government agencies and selected national and state level nongovernmental organizations involved in HIV prevention among drug users;*
- *provide information on the Community Epidemiology Work Group (discussed in PART 2) and the Supplement to HIV/AIDS Surveillance Project (discussed in PART 3); and*
- *provide contact and ordering information for publications and organizations referenced in this document.*

Please note that this part of the *HPDU Resource Book* is not intended to provide information directly related to getting technical assistance in the development, implementation, or evaluation of HIV prevention activities with drug users. Rather, it is a listing of information resources that can provide educational materials and documents in support of HIV prevention activities as they relate to HIV and drug use.

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## FEDERAL RESOURCES

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The federal government provides a wide range of information on HIV/AIDS that is available in both paper and electronic formats. Specific information on drug use and HIV/AIDS can be obtained through a variety of different agencies and institutes. A comprehensive literature search will involve using the resources listed below.

To streamline the process of seeking information and materials, users should always start their search by contacting either the CDC National AIDS Clearinghouse (NAC) or the National Clearinghouse on Alcohol and Drug Information (NCADI). These clearinghouses are repositories of government-produced reports and educational materials. Another major source of information is the National Library of Medicine, which provides access to the wealth of academic HIV/AIDS literature through the free database, AIDSLINE. A description of each resource is provided below, including service and contact information.

### ***Centers for Disease Control and Prevention***

*<http://www.cdc.gov>  
1600 Clifton Road, NE  
Atlanta, GA 30305*



The Centers for Disease Control and Prevention (CDC) assesses the status and characteristics of the AIDS epidemic and the prevalence of HIV infection, and supports, through financial and technical assistance, the design, implementation, and evaluation of HIV prevention and education activities. CDC's HIV/AIDS prevention initiatives are carried out primarily through the Division of HIV/AIDS Prevention National Center for HIV, STD, and TB Prevention (NCHSTP) ([http://www.cdc.gov/nchstp/hiv\\_aids/dhap.ht](http://www.cdc.gov/nchstp/hiv_aids/dhap.ht)). CDC's HIV/AIDS information dissemination is carried out through the National AIDS Clearinghouse (NAC), described below.

### **CDC National AIDS Clearinghouse (NAC)**

*<http://www.cdcnac.org>  
Rockville Resource Center  
P.O. Box 6003  
Rockville, MD 20850-6003  
Phone: (800) 458-5231  
Fax: (800) 458-5231*

*Atlanta Resource Center  
18 Executive Park, Suite 1804  
Atlanta, GA 30329  
Phone: (404) 982-0353  
Fax: (404) 982-0346*



The CDC National AIDS Clearinghouse (NAC) is the nation's reference, referral, and distribution service for HIV/AIDS-related information. The Clearinghouse collects, organizes, and disseminates materials and information on HIV infection to people and organizations working in the field of HIV/AIDS. All of the Clearinghouse's services are designated to facilitate sharing of information and resources among Clearinghouse users on education and prevention services, published materials, research findings, and trends.

## SERVICES AVAILABLE

**Comprehensive reference and referral services.** Reference specialists are available to assist prevention planners, program managers, and staff locate information on various aspects of HIV/AIDS prevention by calling the Clearinghouse directly (1-800-458-5231). Reference specialists can provide information through the following two search services:

- *Standard Search Series:* These literature searches are pre-produced by Clearinghouse staff. They include information on a variety of current HIV/AIDS-related topics including HIV and drug use.
- *Customized search:* Reference specialists are available to help in planning and conducting a search strategy specific to individual needs. They can execute searches over the phone and send the results, along with the documents to requestors.

**HIV/AIDS-Related Databases.** The Clearinghouse provides access to a number of HIV/AIDS-related databases. These databases, which are listed below, can be accessed through NAC ONLINE<sup>1</sup>, a computerized information network that offers a direct link to the Clearinghouse's comprehensive information collection. Users can access the databases directly through NAC ONLINE, or they can contact a reference specialist at the Clearinghouse (1-800-458-5231) to conduct a search.

- *Educational Materials Database:* consists of nearly 15,000 descriptions of prevention materials, many of which are available directly from the Clearinghouse.
- *Resources and Services Database:* descriptions of nearly 20,000 organizations that provide HIV/AIDS prevention, education, and social services.

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1. NAC ONLINE can be accessed directly using a modem by following these instructions:

- A. Set your communications software to dial 1-800-851-7245
- B. Set the options for 8 data bits, no parity, 1 stop bit, full duplex
- C. Complete a new user questionnaire

Full access to the NAC ONLINE system will be provided after your registration form is processed.



- ***Funding Database:** includes private and government funding opportunities for community-based HIV/AIDS service organizations.*
- ***Comprehensive School Health Education Database:** includes information on resources to help educate children and young adults about HIV/AIDS.*
- ***AIDS Daily Summary Database:** consists of abstracts of HIV/AIDS-related articles from major newspapers, wire services, medical journals, and news magazines.*
- ***Conference Database:** describes HIV/AIDS-related meetings, seminars, and workshops.*
- ***CDC Morbidity and Mortality Weekly Report (MMWR) Database:** includes all HIV/AIDS-related articles issued in the MMWR series.*
- ***Periodicals Database:** contains bibliographic information for HIV/AIDS-related newsletters and journals.*
- ***Federal Information Database:** includes Federal press releases and statements on HIV/AIDS.*

**Fax on Demand Service (NAC FAX).** This is a relatively new service of the Clearinghouse that provides information directly by fax machine, 24 hours a day, 7 days a week. Documents, including CDC fact sheets, surveillance report tables, and information on Clearinghouse services, are available free through this service.

**Publications Distribution.** Single and bulk copies of CDC educational brochures, posters, reports, and videotapes are available from the Clearinghouse upon request.

**Internet Services.** The Clearinghouse maintains an Internet mailing list, gopher server, Webpage, the AIDSNEWS Listserv, and an anonymous File Transfer Protocol (FTP) site through which it provides general information, accepts reference questions, and accepts orders for free publications. (<http://www.cdcnac.org>)

- **AIDSNEWS Listserv:** This listserv sends out daily, current awareness information to subscribers including: the AIDS Daily Summary, conference information, announcements of relevant CDC publications, lists of newly acquired NAC publications, and new treatment information.

To join the AIDSNEWS Listserv send an Internet email message to the following address: [listserv@cdcnac.aspsys.com](mailto:listserv@cdcnac.aspsys.com) with the following command in the subject line: subscribe aidsnews (your first name your last name). You will be prompted for further information.

## CDC Hotline and Telephone Information Services

CDC has a variety of telephone services for the general public that can be used by prevention planners and program managers to answer specific questions about HIV/AIDS.

*(800) 342-AIDS (English Hotline)*  
*(800) 344-SIDA (Spanish Hotline)*  
*(800) 243-7012 (Hotline for TTY/TDD users)*  
*(404) 332-4570 (Statistics Information Line)*  
*(404) 332-4555 (Voice Information System)*  
*(404) 332-4565 (Fax Information Service)*

**CDC National AIDS Hotline.** The CDC National AIDS Hotline is a toll-free HIV/AIDS-related information service that provides confidential information, referrals, and educational materials to the public. The Hotline operates 24 hours a day, 7 days a week (see above for phone numbers).

**CDC Automated Telephone Services.** The *CDC HIV/AIDS* Statistics Information Line provides current statistics on HIV infection and AIDS. *CDC's Voice Information System* provides up-to-date information on a variety of health-related topics, including HIV/AIDS. To receive free faxes on a variety of HIV/AIDS-related topics, call the CDC Fax Information Service (see above for phone numbers).

## **Substance Abuse and Mental Health Services Administration (SAMHSA)**

<http://www.samhsa.gov>

5600 Fishers Lane

Rockville, MD 20857

(301) 443-8956 (Office of Communications)

(301) 443-0365 (Division of Public Education and Dissemination, CSAP)

(800) 354-8825 (PREMIS)



SAMHSA's mission is to improve the quality and availability of prevention, treatment, and rehabilitation services in order to reduce illness, death, disability, and cost to society resulting from substance abuse and mental illnesses. SAMHSA administers the Alcohol, Drug Abuse, and Mental Health Services Block Grant and other grant programs that provide states and localities with support for substance abuse and mental illness treatment and prevention programs.

SAMHSA is composed of three Centers that carry out the agency's mission of providing substance abuse and mental health services:

- *The Center for Mental Health Services (CMHS) heads efforts to speed the application of mental health treatments for patients with mental illness.*
- *The Center for Substance Abuse Prevention (CSAP) leads the federal efforts to prevent alcohol and other drug abuse in the US.*
- *The Center for Substance Abuse Treatment (CSAT) designs programs to improve treatment services and make them more available to those in need.*

### **The National Clearinghouse on Alcohol and Drug Information (NCADI)**

<http://www.health.org>

P.O. Box 2345

Rockville, MD 20847-2345

Phone: (800) 729-6686

(800) 487-4889 (TDD)

(800) NCADI-64 (customer support)

Fax: (301) 468-6433



SAMHSA's Center for Substance Abuse Prevention (CSAP) sponsors the National Clearinghouse for Alcohol and Drug Information (NCADI), the one-stop resource for federal alcohol and drug information. NCADI is the world's largest resource for current information and materials concerning substance abuse prevention. It pro-

vides current print and audiovisual materials about alcohol and other drugs, including materials explaining the risk of HIV transmission from sharing needles during injection drug use and from unsafe behaviors stemming from the effects of substance abuse. NCADI's resources include scientific findings; databases on prevention programs and materials, field experts, federal grants, and market research; and information about organizations and groups concerned with alcohol and other drug problems.

## **SERVICES AVAILABLE**

**Bibliographic Research.** NCADI maintains six databases containing over 80,000 studies on alcohol and drugs and prevention. The public may access all NCADI databases through NCADI's Webpage, PREVLINe located at (<http://www.health.org>). They also can access the databases onsite in the Resource Center (which is located in Rockville, MD and is open to the public, Monday through Friday, 9:00am till 5:00pm), or they may request assistance from the information services staff over the telephone (800-NCADI-64). Customized searches in the form of annotated bibliographies from alcohol and other drug databases also are available upon request.

**Publications Distribution.** NCADI houses culturally diverse prevention materials, tailored for use by parents, teachers, youth, communities, and prevention professionals. It publishes a quarterly catalog that contains the references to hundreds of educational materials related to alcohol and drug abuse, organized by target audience. Many of these publications can be downloaded from NCADI's Webpage, (<http://www.health.org>).

**Prevention Pipeline.** This is a bimonthly publication by CSAP on emerging prevention science, educational materials, and program profiles. Contact NCADI for ordering information.

### **The National Resource Center for the Prevention and Treatment of Alcohol, Tobacco, and Other Drug Abuse, and Mental Illness in Women**

is a collaborative effort between CSAP, CSAT, CMHS, SAMHSA's Office for Women's Services (OWS), and the Maternal and Child Health Bureau (MCHB), part of the Health Resources and Services Administration (HRSA). The Center provides an Information and Referral line at (800) 354-8824 or (703) 836-8761 and a direct line (modem to modem) for PREMIS (the Center's specialized information database and electronic communications system) (800) 354-8825.

**Regional Alcohol and Drug Awareness (RADAR) Network.** This is an international communications network that distributes prevention information and provides a nationwide linkage of alcohol and other drug information centers located in every state. A listing of these centers and their corresponding webpages can be found at <http://www.health.org>.

# ***National Library of Medicine (NLM)***

*<http://www.nlm.nih.gov>*

*8600 Rockville Pike*

*Bethesda, MD 20894*

*Phone: (800) 272-4787*

*(800) 638-8480 (MEDLARS Service Desk)*



The National Library of Medicine (NLM) is the world's largest research library serving a single scientific and professional field. The Library collects materials exhaustively in all major areas of the health sciences. It produces the MEDLARS (Medical Literature Analysis and Retrieval System) databases to offer online and Internet access to the contents of medical and public health literature.

## **SERVICES AVAILABLE**

**Databases.** NLM produces three databases focusing on HIV/AIDS including: *AIDSLINE*, *AIDSTRIALS*, and *AIDSDRUGS*. Any major search for literature on HIV/AIDS should include a database search of *AIDSLINE*. Online access to all three databases is free of charge.

***AIDSLINE:*** Contains references to the published literature on HIV/AIDS with a focus on the biomedical, epidemiologic, oncologic, public health, and social and behavioral science literature. It contains citations (with abstracts if available) to journal articles, monographs, meeting abstracts and papers, and reports from 1980 to the present.

***AIDSTRIALS:*** Contains information about HIV/AIDS related clinical trials.

***AIDSDRUGS:*** Contains descriptive information about each drug being tested in HIV/AIDS Clinical trials.

*AIDSLINE* and its related databases can be accessed in several ways. Public libraries and university libraries often have access to these databases. The NLM software package, Grateful Med and Internet Grateful Med also give users access to these databases. For more information on how to access the *AIDSLINE* databases through Grateful Med contact the MEDLARS Service Desk at (800) 638-8480 or visit Internet Grateful Med at <http://igm.nlm.nih.gov>. For information on local libraries that have access to these databases and other health resources, call the National Network of Libraries of Medicine at (800) 338-7657. An information specialist will provide a referral to local university and medical

libraries that are willing to provide non-affiliated users with library services such as online database searching, access to journal literature, books, and audiovisuals.

**The NLM Webpage.** The NLM Webpage (<http://www.nlm.nih.gov>) provides timely health information to communities affected by the HIV infection. It provides access to the HIV/AIDS-related information available through NLM including the Guide to NIH AIDS Information Resources, the monthly AIDS bibliography, access to the abstracts from the XI International Conference on AIDS, and links to many other high quality HIV/AIDS Webpages outside NLM. It also provides a link to Internet Grateful Med and available NLM databases.

## ***Food and Drug Administration (FDA)***

*<http://www.fda.gov>*

*5600 Fishers Lane*

*HFE-50*

*Rockville, MD 20857*

*Phone: (301) 443-3170 (Consumer Affairs)*

*(301) 443-0104 (Clinical Trials)*

*(800) TRIALS-A (Clinical Trials)*

*(800) 222-0185 (online connect)*



The FDA is responsible for assuring the safety and effectiveness of drugs, biologics, vaccines, and medical devices used in the diagnosis, treatment, and prevention of HIV infection, AIDS, and AIDS-associated opportunistic infections. FDA works also with the blood banking industry to help ensure the safety of the nation's blood supply. The agency is a co-sponsor of the AIDS Clinical Trials Information Service.

### **SERVICES AVAILABLE:**

**The FDA Webpage.** The FDA Webpage (<http://www.fda.gov>) provides users with a wealth of information on biologics, foods, human drugs, medical devices and radiological health, toxicology, and field operations. It contains a sophisticated search engine that enables users to search all the documents located on the FDA Webpage. Many documents can be found on the topics of HIV/AIDS and substance abuse that can then be downloaded or printed directly.



## ***Health Resources and Services Administration (HRSA)***



*<http://www.hrsa.dhhs.gov>*

*5600 Fishers Lane*

*Rockville, MD 20852*

*Phone: (800) 933-3413 (National HIV Telephone Consulting Service)*

*(301) 443-6364 (HIV Clinical Conference Call Series)*

*(301) 443-6364 (AIDS Education and Training Centers)*

*(800) 362-0071 (National Pediatric HIV Resource Center)*

*(301) 443-4588 (Clinical Issues Subcommittee)*

HRSA administers education and training programs for health care providers and community service workers who care for AIDS patients. HRSA administers programs funded by the Ryan White CARE Act to demonstrate how communities can organize their health care resources to develop an integrated, comprehensive system of care for those with AIDS and HIV infection.

### **SERVICES AVAILABLE**

**National HIV Telephone Consulting Service.** This toll-free service provides information on drugs, clinical trials, and the latest treatment methods to physicians and other health care professionals who have questions about providing care to people with HIV infection or AIDS. All staff members are health professionals with extensive experience in outpatient and inpatient primary care of people with HIV-related diseases. The service is available from 10:30 a.m. to 8 p.m. Monday through Friday, Eastern time (see above for phone number).

**HIV Clinical Conference Call Series.** In collaboration with the National Institute of Allergy and Infectious Diseases (NIAID), HRSA offers interactive, toll-free audio teleconferences during which primary health care providers from many disciplines have the opportunity to discuss timely clinical issues with internationally renowned clinical experts (see above for phone number).

**AIDS Education and Training Centers (AETCS).** HRSA supports a network of 17 regional centers that serve as resources for educating health professionals in prevention, diagnosis, and care of HIV-infected patients. The centers train primary care providers to incorporate HIV prevention strategies into their clinical practices, along with helping them diagnosis, counsel, and care for HIV-infected persons and their families. To find the name and phone number for the AETC in your area contact the AIDS ETC Program (see above for phone number).

**National Pediatric HIV Resource Center.** The Bureau of Maternal and Child Health, HRSA, supports the National Pediatric HIV Resource Center, which offers a range of services to professionals caring for children, youth, and families affected by HIV infection. The Resource Center provides consultation, technical assistance, policy analysis, and clinical training. The center is accessible from 9 a.m. to 5 p.m. Eastern time and can be reached by calling 1- (800) 362-0071, fax: (201) 485-2752, or by writing to the National Pediatric HIV Resource Center, 15 South Ninth Street, Newark, NJ 07107.

**Clinical Issues Subcommittee.** The Clinical Issues Subcommittee of the HRSA AIDS Advisory Committee was established to facilitate timely dissemination of information about new developments in clinical research, drug development, and policies on HIV/AIDS into language relevant for practicing caregivers, principally those supported by HRSA's HIV/AIDS-related programs. NIAID and the NIH Office of AIDS Research have participated in all its activities. For information, contact Pearl Katz, PhD, AIDS Program Office, Health Resources and Services Administration, 5600 Fishers Lane, Rockville, MD 20857; (301) 443-4588.

# ***National Institute on Drug Abuse (NIDA)***

*<http://www.nida.nih.gov>*

*5600 Fishers Lane*

*Rockville, MD 20857*

*Phone: (301) 443-6245 (Publications)*

*(800) 729-6686 (National Clearinghouse on Alcohol and Drug  
Information)*

*(703) 487-4650 (National Technical Information Service)*

*(301) 443-6543 (Community Epidemiologic Work Group)*

*(301) 443-6046 (AIDS Work Group)*

*Fax: (301) 468-6433 (NCADI)*

*(703) 321-8547 (NTIS)*



The National Institute on Drug Abuse (NIDA) is a part of the National Institutes of Health (NIH) and is the nation's lead agency responsible for conducting and disseminating research on drug abuse and addiction to improve prevention, treatment, and policy.

## **SERVICES AVAILABLE**

**NIDA Publications.** NIDA produces many professional and scientific publications as well as public education materials on the results of its research. All NIDA publications are available either through NCADI or the National Technical Information Service (NTIS) (see phone numbers above for information on these services or to request a copy of NIDA's publications catalog). Publications include:

*NIDA Notes:* Published bimonthly, this newsletter reports on advances in the field of drug abuse, identifies resources, promotes exchanges of information, and seeks to improve communication among clinicians, researchers, administrators, and policymakers.

*Community Alert Bulletins:* Produced periodically, these bulletins address new and emerging drug abuse issues that warrant special attention (e.g., bleach disinfection for HIV prevention).

*NIDA Capsules:* These factsheets provide concise summaries of issue areas for the press and the public.

*Research Dissemination and Application Packages:* This series of educational products (including videotapes) focuses on research-based drug treatment strategies and techniques.

*Research Monograph Series:* These monographs report on state-of-the-art drug abuse research findings, problem areas, and technologies, including AIDS prevention and treatment.

*Clinical Report Series:* This series provides information from NIDA's research programs, including those focusing on AIDS prevention and treatment.

*Services Research Monographs:* These monographs present findings from the latest drug abuse treatment services research on a range of topics.

*Research Report Series:* These reports simplify the science of research findings for the educated lay public, legislators, educational groups, and practitioners.

*Public Education Materials:* These include multi-media materials for public education and science education campaigns related to drug abuse and addiction.

**Internet Services.** The NIDA Webpage (<http://www.nida.nih.gov>) has extensive links to other webpages focusing on substance abuse. It also has information on NIDA grants and contracts, communications and documents, events, committees, divisions, offices, and workshops.

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## National Resources

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This section highlights several national resource organizations that are involved in HIV prevention among drug users.

### ***American Foundation for AIDS Research (AmFAR)***

Los Angeles (<http://www.amfar.org>)  
5900 Wilshire Blvd., 23rd Floor  
Los Angeles, CA 90036 (Main Office)



New York 733 3rd Avenue, 12th Floor  
New York, NY 10017 (East Coast Office)

Washington 1828 L Street, NW, Suite 802  
Washington, DC 20036 (Policy Office)  
Phone: (213) 857-5700 (LA)  
(212) 682-7440 (NY)  
(202) 331-8600 (DC)

The American Foundation for AIDS Research (AmFAR) is a national, non-profit public foundation fighting AIDS through grant-making programs in biomedical and clinical research, education for AIDS prevention, and public policy development. AmFAR has played a lead role in supporting and conducting research on needle exchange.

### **SERVICES AVAILABLE**

AmFAR publishes a directory of research initiatives, information software, bilingual handbooks, and a newsletter.

# ***Center for AIDS Prevention Studies (CAPS)***

*<http://www.epibiostat.ucsf.edu/capsweb>*

*74 New Montgomery, Suite 600*

*San Francisco, CA 94105*

*Phone:(415) 597-9100*

*Fax:(415) 597-9213*



The Centers for AIDS Prevention Studies (CAPS) at the University of California at San Francisco is committed to preventing HIV, using the expertise of multiple disciplines, and an applied and community-based perspective within a university setting.

## **SERVICES AVAILABLE**

CAPS provides bibliographies of all the HIV/AIDS prevention research conducted by CAPS researchers. These bibliographies are extensive and are cross referenced by author and subject area.

**HIV Prevention Facts Sheets.** CAPS produces summaries of specific topics dealing with HIV/AIDS prevention. Topics for the Fact Sheets are chosen on the basis of timeliness, what the community needs to know, and what scientific matters are of particular importance. All Fact Sheets are available in English and in Spanish. Titles of the Fact Sheets include:

- Does HIV Prevention Work?
- Do Condoms Work?
- Does Needle Exchange Work?
- What are Women's HIV Prevention Needs?
- What is Testing's Role in HIV Prevention?
- Can Clinicians Help with HIV Prevention?
- Can HIV Prevention Make a Difference for Men Who Have Sex With Men?
- What are Adolescents' HIV Prevention Needs?
- What are Young Gay Men's HIV Prevention Needs?
- Does Sex Education Work?
- What is the Role of HIV Testing at Home?
- Is HIV Prevention a Good Investment?
- What are Inmates' HIV Prevention Needs?
- Can Theory Help in HIV Prevention?
- What are African Americans' HIV Prevention Needs?
- What are Homeless People's HIV Prevention Needs?
- What are Latinos' HIV Prevention Needs?

Are Informal Caregivers Important in AIDS Care?  
What are Sex Workers' HIV Prevention Needs?  
We Know What Works in HIV Prevention: Why Aren't We Doing More of It?  
What are Substance Abusers' HIV Prevention Needs?  
How are Heterosexual Men Reached in HIV Prevention?  
Can HIV Prevention Programs be Adapted?  
What are Women Who Have Sex With Women's HIV Prevention Needs?  
How is Science Used in HIV Prevention?

The CAPS Fact Sheets may be downloaded from the CAPS Webpage (<http://www.epibiostat.ucsf.edu/capsweb>), or ordered through the mail. To be placed on the CAPS mailing list, contact CAPS directly.

## ***United States Conference of Mayors (USCM)***

*<http://www.btg.com/USCM/home.html>  
1620 Eye Street, NW  
Washington, DC 20006  
Phone: (202) 293-7330.  
Fax (202) 293-2352*



The United States Conference of Mayors (USCM) is the non-partisan organization of mayors of cities with populations of 30,000 or more. There are about 1,050 such cities in the country today. USCM contributes to development of national urban policy on various issues, including AIDS and drug abuse.

### **SERVICES AVAILABLE**

Since 1985, the CDC-sponsored USCM HIV/AIDS Program has supported 180 community-based organizations and local health departments. In addition to direct funding, USCM provides technical assistance to organizations carrying out HIV prevention activities. The *AIDS Information Exchange* is the official publication of the USCM AIDS/HIV Program. USCM also produces various reports on the topic of HIV/AIDS prevention that are available by contacting the USCM directly.

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## State Resources

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### ***National Alliance of State and Territorial AIDS Directors (NASTAD)***

*444 N. Capitol Street, NW  
Suite 339  
Washington, DC 20001  
Phone: (202) 434-8090  
Fax: (202) 434-8092*



The National Alliance of State and Territorial AIDS Directors (NASTAD) represents HIV/AIDS program managers in each US state and territory. Members are responsible for administering AIDS care, prevention, education, and supportive service programs, including those funded under Title II of the Ryan White CARE Act.

#### **SERVICES AVAILABLE**

NASTAD provides technical assistance to health departments and community groups in HIV prevention community planning and social marketing, including distribution of a monthly Community Planning Bulletin and a quarterly Social Marketing Update to all AIDS directors and community planning co-chairs. Services include peer-based, onsite technical assistance, workshops and policy papers as well as national conferences. A NASTAD “Committee on HIV Prevention and Substance Users” focuses on issues and programs for this population.



## ***National Association of State Alcohol and Drug Abuse Directors (NASADAD)***

*444 North Capitol Street, NW*

*Suite 642*

*Washington, DC 20001*

*Phone:(202) 783-6868*

*Fax:(202) 783-2704*



The National Association of State Alcohol and Drug Abuse Directors (NASADAD) is a private, not-for-profit, educational organization whose membership consists of directors of US State and Territorial Alcohol and Drug Abuse Agencies. The primary purpose of NASADAD is to serve as an information clearinghouse and technical assistance resource for state alcohol and drug abuse agencies.

### **SERVICES AVAILABLE**

NASADAD is involved in a number of HIV-related activities including workshops and training to state agencies in HIV prevention. It fosters the development of sound policies related to HIV prevention among drug users.

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# The Community Epidemiology Work Group

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*The Division of Epidemiology and Prevention Research  
National Institute on Drug Abuse  
5600 Fishers Lane  
Rockville, MD 20857*

The Community Epidemiology Work Group (CEWG), sponsored by the National Institute on Drug Abuse (NIDA) is a network of researchers from major metropolitan areas of the United States, Canada, and Mexico. The CEWG's primary objective is to provide ongoing community-level public health surveillance of drug use and abuse, through the collection and analysis of epidemiologic and ethnographic research data.

## SERVICES AVAILABLE

The CEWG provides current descriptive and analytical information regarding the nature and patterns of drug abuse, emerging trends, and characteristics of vulnerable populations. For more information, contact the CEWG directly.

*The HPDU Resource Book* cites two recent CEWG publications:

Johnson, Bassin and Shaw, Inc. (Silver Spring, MD). *Epidemiologic trends in drug abuse, volume I: highlights and executive summary*. Rockville (MD): National Institute on Drug Abuse, Division of Epidemiology and Prevention Research; 1995 June. NIH Publication No. 95-3990. (NTIS ID#PB96-101449)

This CEWG document may be obtained at a cost of \$21.50 by contacting:

The National Technical Information Service (NTIS)  
U.S. Department of Commerce  
Springfield, VA 22161  
(703) 487-4660

Johnson, Bassin and Shaw, Inc. (Silver Spring, MD). *Epidemiologic trends in drug abuse, volume II: community epidemiology work group, proceedings*. Rockville (MD): National Institute on Drug Abuse, Division of Epidemiology and Prevention Research; 1995 June. NIH Publication No. 96-3991. This document is no longer available through NTIS.

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## **Supplement to HIV/AIDS Surveillance (SHAS) Project**

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If state or local health departments are interested in becoming involved with the SHAS surveillance effort, they can contact the CDC for information. Please contact:

*Allyn Nakashima  
Surveillance Branch,  
Division of HIV/AIDS Surveillance and Epidemiology  
(404) 639-2044*

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## **Ordering Information for Documents Referenced in the *HPDU Resource Book***

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**The following CDC and AED source documents may be ordered free of charge from the National AIDS Clearinghouse by calling 1-800-458-5231**

Academy for Educational Development. *Handbook for HIV prevention community planning*. Washington (DC): Academy for Educational Development; 1994 April. Contract No.: 200-91-0906. Funding provided by the Centers for Disease Control and Prevention. CDC NAC Ordering No. D071

Academy for Educational Development. *What intervention studies say about effectiveness: a resource for HIV prevention community planning groups*. Washington, DC: Academy for Educational Development; 1996 May. Contract No.: 200-91-0906. Funding provided by the Centers for Disease Control and Prevention. CDC NAC Ordering No. D922

Centers for Disease Control and Prevention, Division of HIV/AIDS Prevention; Council of State and Territorial Epidemiologists. *Suggested guidelines for developing an epidemiologic profile for HIV prevention community planning*. Atlanta (GA): Centers for Disease Control and Prevention; 1995 June. CDC NAC Ordering No. D875

### **How to locate the journal articles and books referenced in this document**

The journal articles and books referenced in the *HPDU Resource Book* can be acquired through local college or university libraries. Users not affiliated with a college or university library, can contact the National Network of Libraries of Medicine (NNLM) at 1-800-338-7657. A librarian will provide a referral to a local and/or regional academic library willing to provide document delivery service.

# **A EVALUATION STUDY SUMMARY FORMS FOR INTERVENTIONS ADDRESSING DRUG USERS**

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Each summary in Appendix A describes a study conducted on a specific intervention with a particular target group. These summaries will help prevention planners and program managers consider interventions for particular target groups in the drug-using population. The contents of this appendix provide the following information:

- *Summaries of selected peer-reviewed journal articles of evaluation studies completed on HIV prevention interventions conducted with drug users.*
- *Information on the: 1) authors of the article, 2) the journal where the article was published, 3) the target and study populations addressed, 4) the objective(s) of the intervention for risk behavior, 5) the objective(s) of the intervention for determinants of risk behavior, 6) the taxonomy category and intervention description, 7) the evaluation methods, and 8) the evaluation findings.*
- *Comments on special implications or usefulness of the study or intervention.*

# EVALUATION STUDY SUMMARY FORMS FOR INTERVENTIONS ADDRESSING DRUG USERS

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Articles in the peer-reviewed literature are often written for academic audiences and contain much information that is useful for their purposes, but difficult for planners and program staff to interpret and apply. Based on suggestions from representatives of Community Planning Groups, we focused attention on three key aspects of the studies included in the appendix: the target population, the description of the intervention based on CDC's suggested taxonomy, and the findings on demonstrated effectiveness. To accomplish this, we created a standard Evaluation Study Summary Form to help capture consistent information as we reviewed each article. The box below lists the elements of the Summary Form, with a brief definition of each. CDC's taxonomy framework adapted from Holtgrave, Valdiserri, and West (1994), is shown in Exhibit L.

We hope that these summaries will help prevention planners and program managers interpret and incorporate evaluations of effectiveness into their decision making. In addition, with the Evaluation Study Summary Form we hope to provide a useful framework for continued efforts to interpret emerging research on HIV prevention intervention effectiveness.

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## Evaluation Study Summary Form

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**Target and Study Populations:** The target population is the population for whom the intervention was developed. The study population is that part of the population that participated in the evaluation and is typically more restricted than the target population.

**Objective(s) of the Intervention for Risk Behavior:** The intervention is described in terms of the specific HIV risk behavior(s) it was designed to influence.

**Objective(s) of the Intervention for Determinants of Risk Behaviors:** The intervention is described in terms of the determinants through which it is intended to have its desired effect.

**Taxonomy Category and Intervention Description:** The intervention is categorized in terms of the Suggested Taxonomy from the Overview of HIV/AIDS Prevention Interventions: An Approach to Examining Their Effectiveness. A description of the intervention is provided.

**Evaluation Methods:** The sample size, study design, measures, and analysis techniques are described.

**Evaluation Findings:** Three types of findings are reported — effectiveness at influencing risk behaviors, effectiveness at influencing the determinants of risk behaviors, and implementation issues.

**Comments:** This section includes comments on special implications or usefulness of the study or intervention.

# A Suggested Taxonomy for Classifying HIV Prevention Interventions

## **Category I. Counseling, Testing, Referral, and Partner Notification (CTRPN)**

- A. HIV Counseling and Testing
- B. Referral
- C. Voluntary Partner Notification
- D. Other

## **Category II. Health Education/Risk Reduction (HE/RR)**

- A. Individual-level Counseling
- B. Group-level Counseling
- C. Street and Community Outreach Programs
- D. Institution-based Programs
- E. Community-level Interventions/Mobilizations

## **Category III. Health Communication/Public Information (HC/PI)**

- A. Mass Media
- B. Other Media
- C. Social Marketing
- D. Endorsements/Testimonials by Opinion Leaders
- E. Hotlines/Clearinghouses

## **Risk Reduction in Sexual Behavior: A Condom Giveaway Program in a Drug Abuse Treatment Clinic**

Calsyn DA, Meinecke C, Saxon AJ, Stanton V

*American Journal of Public Health* 1992;82(11):1536-1538

### **Target and Study Populations**

*Target population.* The intervention was designed for male injection drug users receiving outpatient drug abuse treatment.

*Study population.* The intervention was evaluated in a sample of men receiving outpatient drug abuse treatment at the Veterans Affairs Medical Center, Seattle, Washington, during December 1989 and remaining in treatment through May 1990. The men were primarily white (77 percent); 22 percent were African American. About half were employed.

### **Objective(s) of Intervention for Risk Behavior**

To increase the use of condoms during vaginal intercourse.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase accessibility of condoms.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction program that is institution based.

The intervention consisted of providing free access to a variety of styles of individually packaged condoms in an outpatient drug abuse treatment center. The condoms were made readily available throughout the clinic (e.g., staff offices, restrooms, therapy rooms). Most clients attended an AIDS education class in which the correct use of condoms was demonstrated and a free starter pack of condoms was distributed.

### **Evaluation Methods**

Before the giveaway program, participants completed a self-report questionnaire assessing condom purchase, brand preference, possession, use history, and use within preceding two months. The questionnaire was repeated four months after the intervention began. Baseline and follow-up values for dichotomous questions were compared by contingency table analysis using the McNemar test. A Wilcoxon sign-ranks test was used for continuous measures. The article reports on the 93 of the clients (90 percent) who completed both baseline and follow-up questionnaires.



**Evaluation Findings**

The intervention was effective at improving behavior. A modest, but statistically significant increase occurred in condom use during vaginal intercourse. Specifically, use of condoms during vaginal intercourse increased from 20 percent at baseline to 34 percent at four months after the initiation of the condom giveaway program. There was also a statistically significant increase in the proportion of the sample possessing condoms from 59 percent before to 76 percent four months after.

Without a control group it is difficult to conclude that the increases are attributable to the giveaway program. However, this evaluation study suggests that increasing access to condoms may increase the possession and use of condoms among clients of a drug abuse treatment clinic.

**Comments**

This study illustrates the role that free access to a variety of styles of individually packaged condoms can play in influencing condom use. Although condoms are available in stores and pharmacies, free offerings of a variety of styles may eliminate barriers to purchase and increase the likelihood that individuals will be carrying condoms at times they may engage in sexual activity.

## **AIDS and the Transition to Illicit Drug Injection — Results of a Randomized Trial Prevention Program**

Des Jarlais DC, Casriel C, Friedman SR, Rosenblum A  
*British Journal of Addiction* 1992;87(3):493-498

### **Target and Study Populations**

*Target population.* The intervention was designed for adult drug users who were using heroin intranasally.

*Study population.* The impact of the intervention was evaluated in a study conducted between 1986 and 1988 with 104 participants from New York City who were using heroin intranasally (“sniffing”) as their primary route of heroin use and who had injected no more than 60 times in the previous two years. Participants were required to be HIV antibody or hepatitis B antibody negative in status. None of the subjects seroconverted for HIV during the follow-up period. The mean age of the sample was 27 years, and the mean level of education completed was nearly 13 years. The sample was predominantly male (70 percent), white (51 percent) or African American (26 percent), and heterosexual (78 percent).

### **Objective(s) of Intervention for Risk Behavior**

To decrease HIV exposure due to needle-use practices by reducing injection.  
To increase the use of bleach and condoms.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge about HIV transmission and prevention.  
To improve skills in cleaning needles and using condoms.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction intervention using group-level, peer-mediated counseling emphasizing risk reduction for injection drug users.

The intervention was theory based and consisted of four 60 to 90-minute group sessions that took place over a two-week period. The sessions included basic information about HIV/AIDS, drug use and drug injection, sexual behavior and HIV/AIDS, and seeking entry into drug abuse treatment programs. The sessions were led by two trainers and involved didactic materials, group discussion, and role playing of critical situations, such as refusing an offer of injection or seeking entry into drug abuse treatment program when one’s non-injected drug use became too heavy.

Instructions on safer injection procedures, such as using bleach to decontaminate injection equipment, were provided.

**Evaluation Methods**

Eligible participants were randomly assigned to the four-session intervention program or to the control condition. Assessments were made at baseline, before the intervention, and at follow up, about nine months after the intervention. At baseline, all participants took part in a lengthy intake and data collection process. Participants were interviewed on drug use history, sexual behavior history, and knowledge of HIV/AIDS. They provided a urine sample for drug testing. They received basic information about AIDS, including HIV counseling, and were asked to give a blood sample for HIV testing. Nearly 90 percent decided to take the test. All participants, including those who decided against HIV testing, were also required to give a blood sample for hepatitis B testing. Follow-up data collection included an interview covering drug and sexual behavior since the intake period, attitudes toward HIV/AIDS, and a second blood sample for HIV and/or hepatitis B testing. Due to intensive follow-up efforts, 83 subjects (80 percent) were successfully followed up at a mean of 8.9 months. Univariate and multivariate analyses predicting drug injection at follow up were conducted to assess the impact of the intervention as well as to determine factors associated with injection.

**Evaluation Findings**

The intervention was effective in reducing injection drug use. In comparison to the control group, intervention participants had a significantly lower level of injection at follow up. However, it did not prevent all drug injection. In fact, 15 percent of the persons assigned to the intervention injected during the follow-up period, compared to 33 percent of those assigned to the control group.

There was no evidence that the intervention was effective at improving safer sexual practices. For example, reported condom use increased for both the intervention and the control group from about 26 percent at baseline to about 49 percent at follow up.

**Comments**

An intensive four-session AIDS/drug injection prevention program was effective in reducing the level of injection use of heroin and cocaine during the follow-up period. The high follow-up rate achieved in this study among drug users, who were not associated with treatment programs, indicates the feasibility of this approach.

## **Preventing HIV/AIDS in Drug-Abusing Incarcerated Women Through Skills Building and Social Support Enhancement: Preliminary Outcomes**

El-Bassel N, Ivanoff A, Schilling RF, Gilbert L, Borne D, Chen DR  
*Social Work Research* 1995;10(3):131-141

### **Target and Study Populations**

*Target population.* The intervention was designed for adult women with a recent history of significant drug use, currently incarcerated but scheduled for release.

*Study population.* The impact of the intervention was evaluated in a study of 145 incarcerated women 18-55 years of age, convicted and serving a sentence between three months and one year at New York City's Rikers Island Jail and who were scheduled for release within 10 weeks. The women reported recent history of significant drug use (three or more times a week during the three months before the arrest); 16 percent self-reported to be HIV seropositive. The sample was primarily composed of African American, unemployed, single mothers who had not completed high school.

### **Objective(s) of Intervention for Risk Behavior**

To increase the practice of safe sex (abstinence or always condom use during vaginal intercourse).

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge of HIV/AIDS transmission and prevention.

To improve problem solving, coping, and condom use skills.

To enhance social support.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction intervention using group-level, non-peer mediated counseling, emphasizing skills and social support and delivered in a prison setting.

The intervention consisted of 16 two-hour group sessions held twice a week in jail. The sessions included about 10 participants and were led by two group facilitators. The facilitators were selected for similarity to participants, had three days of training, and received weekly individual and group supervision. The content of the sessions was theory based and emphasized skill building and social support enhancement. Sessions to improve skills at solving problems, coping with high-risk situations, and using condoms included introducing and modeling skills by facilitators, practice by participants during the session, and homework assignments. Social support was enhanced by assisting participants in identifying informal and formal sources of support and services and in making contact with these sources.

Participants shared successes and problems in making these contacts. The comparison was a standard HIV/AIDS information intervention typical of most jails, with three two-hour educational group sessions about HIV prevention.

### **Evaluation Methods**

At baseline, incarcerated women were randomly assigned to the intervention (skills and social support) or control (information) group. Participants were interviewed several times during the study period: at baseline; at the exit interview two to seven days before release; in the community within two days of release; and at one, three, six, and 12 months following release. The interviews assessed demographic characteristics, HIV/AIDS knowledge, coping skills, emotional support, perceived vulnerability, drug use, and sexual behavior during 30 days (30 days before arrest for baseline and past 30 days for follow ups). Safe sexual practice was defined as used condoms always or not having vaginal intercourse. This article reports on the results comparing baseline to one-month follow up from 49 intervention participants and 52 control participants. Logistic regression analyses using dichotomized versions of the six outcome variables were conducted.

### **Evaluation Findings**

There was some evidence of the effectiveness of the skills and social support intervention on two key determinants of behavior: coping skills and social support. There was no evidence of the effectiveness of skills and social support intervention on perceived vulnerability to HIV, sexual self-efficacy, or HIV/AIDS knowledge.

Of approximately 200 women who were initially recruited, 159 met the eligibility criteria and completed the baseline assessment. Between baseline and the first session of the intervention, 14 participants were lost because of unplanned release or transfer to another facility, leaving a total of 145 participants. Among those who were assigned to the skills and social support intervention group, 19 percent attended three or fewer sessions, 28 percent attended four to 12 sessions, and 52 percent attended 13 or more sessions; among those in the information group, 86 percent attended the three sessions.

### **Comments**

AIDS has become the leading cause of death among female inmates. This research demonstrates the feasibility of implementing a skill-building and social support intervention for drug-using women in a jail setting. The results indicate that a skills and social support intervention may be more effective than simply providing AIDS information.

## **The Long-Term Outcome of a Personal Network-Oriented HIV Prevention Intervention for Injection Drug Users: The SAFE Study**

Latkin CA, Mandell W, Vlahov D, Oziemkowska M, Celentano DD  
*American Journal of Community Psychology* 1996;24(3):341-364

### **Target and Study Populations**

*Target population.* The intervention was developed for use with networks of injection drug users.

*Study population.* The intervention was evaluated with a sample of 117 predominantly unemployed, African American men with a median age of 40 living in Baltimore, MD. Most were recruited by word of mouth from a larger epidemiologic study on the natural history of HIV/AIDS infection among injection drug users. As participants in the larger study, they had received HIV/AIDS counseling and testing every 6 months; 24 percent were HIV seropositive. Individuals selected for the study were still actively engaging in HIV risk behaviors despite participation in the larger study. They injected cocaine and heroin, 80 percent shared needles in the previous 6 months and were part of a drug-sharing network. They were required to bring at least four members of their networks to the intervention.

### **Objective(s) of Intervention for Risk Behavior**

To decrease HIV/AIDS-related needle sharing behavior.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase awareness of the danger of needle-sharing among members of drug networks and increase awareness of where sterile syringes are available.

To increase the social norms of drug-sharing networks related to not sharing used needles and drug injection equipment.

To increase assertiveness skills in avoiding high-risk behaviors and settings, skills in cleaning injection equipment and identifying where sterile syringes are available.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction intervention using group-level, peer-mediated, risk-reduction training in a clinic setting.

The group intervention procedure used self-help, network-centered, and psychoeducational approaches to behavior change. The intervention program was highly scripted and was facilitated by former heroin users who maintained contact with and were respected by active drug users in Baltimore. The intervention included six interactive group sessions using the role play method.

### **Evaluation Methods**

Before the intervention, all participants, network members, and control group members answered questions about their drug-sharing networks and completed a survey on demographic background, HIV/AIDS-related behavior, and drug use. They indicated how often they injected heroin, cocaine, or heroin and cocaine; how often they shared needles or cookers; and how often they injected drugs in shooting galleries. Participants were randomly assigned to intervention and control groups, and all were reinterviewed 18 months later. For the analysis, intervention participants, but not their network members, were compared with members of the control group.

### **Evaluation Findings**

Of the 411 individuals told they were eligible for the study, 293 enrolled in and 117 completed the study. The intervention was effective in significantly reducing HIV/AIDS-risk behaviors among intervention participants who were HIV seronegative. At the 18-month follow up, intervention participants who were known to be seronegative reported significantly less needle sharing and injecting of heroin and cocaine and marginally less sharing of cookers than did participants in the control group. There was no significant difference between the groups when it came to attendance at shooting galleries. Seropositive individuals in the intervention group reported higher levels of injecting drugs and sharing needles and cookers than did those who did not receive the intervention.

The intervention was also effective in changing determinants of risk behavior. Some intervention participants reported that they no longer associated with individuals who continued to insist on sharing needles. This was verified by a significant reduction in the size of the networks of intervention participants, compared with control group members. Intervention participants were also slightly more likely than control group members to report that they and their network members cleaned their needles and discussed HIV/AIDS.

### **Comments**

The greater associations between perception of network members' risk behaviors, greater reduction in size of drug networks, and a trend toward increased frequency of discussing HIV/AIDS in the intervention group, compared with the control group, suggest that the network approach for reducing risk behaviors is mediated by social influence processes. This study points out the potential importance of examining and intervening in personal network processes as a strategy for HIV/AIDS reduction among injection drug users.

## **Outcome of Psychoeducation for HIV Risk Reduction**

Malow RM, West JA, Corrigan SA, Pena JM, Cunningham SC  
*AIDS Education and Prevention* 1994;6(2):113-125.

### **Target and Study Populations**

*Target Population.* The intervention was designed for African American men receiving inpatient drug abuse treatment.

*Study Population.* The intervention was evaluated with a sample of 152 African American male inpatients of the Veteran's Affairs Drug Dependence Treatment Program in New Orleans. Participants were chronic substance users with cocaine dependence but did not have psychiatric or cognitive impairments. Participants had an average age of 36 years, average schooling of 13 years, and a mean IQ of 105.

### **Objective(s) of Intervention for Risk Behavior**

To reduce risk of HIV exposure due to sexual practices.

To reduce number of sex partners.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge about HIV transmission and prevention.

To improve skills in cleaning needles, using condoms, and in negotiating safer sex.

To increase self-efficacy.

To increase perceived susceptibility to HIV.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction, group-level counseling, non-peer mediated, in treatment setting.

The theory-based intervention was delivered in groups of six to eight individuals. A clinical psychologist administered two-hour group sessions on three consecutive days. The first session developed rapport with patients, personalized the threat of HIV, provided information about HIV, discussed needle sharing, and demonstrated proper needle sterilization procedures. The second session focused on safer sexual practices, condom use, condom use negotiation, and skills-building exercises. The final session reviewed the knowledge and skills imparted in prior sessions and discussed in detail HIV serostatus testing. The delivery of the intervention was guided by a manual. The comparison group received the same information as did the intervention group but in the form of prerecorded audiovisual and printed material with minimal interaction.

### **Evaluation Methods**

Adults who had agreed to participate were randomly assigned to either the skill-based intervention or the information-only comparison group. Baseline data were



collected at least 10 days after hospital admission; follow-up data were collected immediately after the intervention and again after three months. Standardized instruments were used to assess HIV knowledge, perceived susceptibility to HIV, anxiety about health consequences, response-efficacy, self-efficacy, communication skills, and condom use skills. Demographic and background information was collected through personal interviews. Sexual behavior in the preceding three months was used to create a two-level overall measure of sexual risk behavior.

Participants who were abstinent, monogamous, or multipartnered but with 100 percent condom use were classified as “lower risk.” Those who had multiple partners or did not always use condoms were classified as “higher risk.” Analysis of variance and chi-square tests were used to assess impact.

### **Evaluation Findings**

The intervention was effective in decreasing one aspect of sexual risk behavior, proportion having more than one partner. More specifically, in the intervention group, 47.5 percent participants reported having more than one partner at three-month follow up, compared to 76 percent at the baseline. This decrease was statistically significant. In the comparison group, the change from 76 percent at baseline to 59 percent at the three-month follow up was not statistically significant.

Results suggest that the intervention might be effective at improving the overall measure of sexual risk behavior. Among participants in the skill-based intervention group, the proportion classified as higher risk reduced from 75 percent at baseline to 32 percent at the three-month follow up; among participants in the information-only comparison group, the proportion classified as higher risk reduced from 75 percent to 48 percent. Both these improvements were statistically significant. However, contrary to expectations, the improvement in the intervention group was not significantly greater statistically than the improvement in the comparison group.

The intervention was effective in improving two determinants of sexual risk behavior. Communication skills and condom use skills of participants immediately after the intervention were significantly higher in the intervention group than in the control group.

Out of 235 consecutive admissions to the inpatient drug abuse treatment facility, 75 percent met the eligibility criteria for this study, and 65 percent (152) actually consented to participate. Seventy percent of the participants attended all intervention sessions and completed all assessments.

### **Comments**

This study demonstrated that communication skills, condom use skills, and sexual risk behavior of chronic substance users can be improved through group sessions provided in an inpatient treatment setting.

## **Evaluation of Two AIDS Education Programs for Impoverished Latina Women**

Nyamathi AM, Flaskerus J, Bennett C, Leake B, Lewis C  
*AIDS Education and Prevention* 1994;6(4)296-309

### **Target and Study Populations**

*Target population.* The intervention was designed for adult Hispanic women who are homeless and/or drug-abusing.

*Study population.* The intervention was evaluated with a sample of 213 impoverished women in Los Angeles who had identified themselves within the past six months as being drug users (intravenous or non-intravenous), sexual partners of injection drug users, sex workers, having been diagnosed with an STD, having had unprotected sex with two or more partners, or as being homeless. The participants were recruited through homeless shelters and drug recovery programs. The majority of the participants were born in the United States or Mexico, were single, unemployed, and Catholic. Their mean age was 31 years and the mean years of education completed was 10. Only four of the women were HIV-positive at baseline.

### **Objective(s) of Intervention for Risk Behavior**

To reduce risk of HIV exposure due to needle-use practices.  
To reduce the number of sex partners.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge about HIV transmission and prevention.  
To improve skills in using condoms and cleaning needles.  
To improve problem- and emotion-focused coping responses.  
To decrease levels of distress and depression.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction intervention using group-level counseling by health educators.

Two culturally-sensitive HIV/AIDS education programs were administered by trained Hispanic nurse counselors and outreach workers using a detailed script. The one-hour, traditional program provided HIV/AIDS education and referral to community resources. The women watched a video, "Alicia," that emphasized cultural characteristics, including the stigma associated with HIV/AIDS among Hispanics, and received basic education on HIV/AIDS transmission and prevention. They received HIV counseling and had blood drawn for HIV testing. Condoms, bleach, and pamphlets were provided free. The second, more specialized two-hour program added three components: demonstration of risk-reducing strategies, including con-

dom use and needle cleaning skills; discussion of problem-focused coping responses; and self-esteem and self-control enhancement.

### **Evaluation Methods**

The convenience sample of women from 13 homeless shelters and/or eight drug recovery programs were randomized by site into the specialized (98) or traditional (135) intervention groups. Assessments of sociodemographic, cognitive, psychologic, and behavioral variables using nine instruments translated into Spanish and backtranslated to check semantic validity were made at baseline and at two weeks after the intervention. Variables included perception of current concerns about survival, hopelessness, drug addiction, and parenting; appraisal of threat to well-being; knowledge of and attitudes toward HIV/AIDS; problem- and emotion-focused coping behaviors; distress; and depression. Acculturation was assessed with a 12-item scale. Risk behavior was assessed with items on multiple partners, drug use, and intravenous drug use. Repeated measures analysis of variance and log-linear models were used with data from the 213 participants available for follow up.

### **Evaluation Findings**

Both interventions were effective in improving potential cognitive, coping, and psychologic determinants of risk behavior. For example, perfect knowledge scores increased from 17 percent to 76 percent in the specialized group and from 19 percent to 76 percent in the traditional intervention group. Distress scores decreased from means of 49 to 31 for participants in the specialized group, and from 47 to 32 for those in the traditional group. Similar and statistically significant improvements for both groups were seen with measures of current concerns, depression, and use of coping strategies.

The results suggest the intervention may be effective at facilitating some short-term change in risk behavior. Longer-term follow-up assessments are needed. About 20 percent of eligible women who were approached declined to participate due to lack of time. Almost all (91 percent) of the original sample were located at the two-week follow up.

### **Comments**

Women in both the specialized and traditional education programs improved their knowledge of and attitudes toward HIV/AIDS, benefited in terms of decreased levels of distress and depression, and developed improved coping responses. These findings, which replicate a larger study with a predominantly African American sample of homeless and drug-addicted women, suggest that even short-term interventions incorporating general risk-reduction content may be useful for a substantial number of impoverished women.

## **Increasing The Use of Bleach and Condoms Among Injecting Drug Users in Denver: Outcomes of a Targeted, Community-Level HIV Prevention Program**

Rietmeijer CA, Kane MS, Simons PZ, Corby NH, Wolitski RJ, Higgins DL, Judson FN, Cohn DL  
*AIDS* 1996;10(3):291-298

### **Target and Study Populations**

*Target population.* The intervention was designed for injection drug users.

*Study population.* The intervention was evaluated with a sample of 890 street-recruited injection drug users in Denver, Colorado. The majority were male; 34 percent were African American, 33 percent white and 31 percent Hispanic. The average age was about 36 years; HIV seroprevalence was 5.1 percent. They were compared with 1,107 injection drug users recruited in Long Beach, California, the comparison city that did not receive the intervention.

### **Objective(s) of Intervention for Risk Behavior**

To increase the use of bleach for needle cleaning among drug users who share injection equipment.

To increase the use of condoms for vaginal intercourse with occasional partners.

To increase the use of condoms for vaginal intercourse with steady partners.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge about HIV transmission and prevention.

To improve access to bleach kits and condoms.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction, community-level intervention using peer and non-peer street and community outreach.

As part of a five-city, theory-based program known as the AIDS Community Demonstration Projects, volunteers discussed and distributed intervention kits with small-media behavior intervention materials (brochures, pamphlets, flyers, and newsletters containing role model stories), bleach kits, and condoms to individuals in high-risk populations in Denver on a monthly basis over a 2.5-year period. This intervention was provided to hard-to-reach injection drug users on a one-to-one basis by both peer and non-peer volunteers (persons known to and trusted by the target group). Volunteers were recruited by project outreach workers through referrals from other service organizations or referrals from current or former volunteers. The volunteers received training at regular intervals in basic HIV/AIDS

education, role-playing interactions, methods of street approach and non-threatening conversation, and methods for dealing with individuals who refuse materials.

### **Evaluation Methods**

Ten three-month data collection periods (waves) were completed using standardized instruments in high-risk areas of the intervention and comparison cities. Of these, three were completed before the intervention was implemented in June 1991; three more (July 1991 to May 1992) were used to measure the early effects of intervention; and four (June 1992 to December 1993) assessed full implementation. During each wave, every third person was approached by interview staff and a set of screening questions was used to determine the respondent's drug injection and sexual behavior. This was followed by a full questionnaire for those who had used injection drugs within the past 30 days, had shared injection equipment within the past 60 days or had vaginal intercourse during the past 30 days. A total of 13,145 individuals were approached for interview during the study period. Of these, 2,599 met the eligibility criteria and consented to the full interview. After removal of duplicates and sex traders, 890 interviews were available for analysis in Denver and 1,107 in Long Beach. Multivariate logistic regression models were constructed to analyze the effect of exposure to the intervention.

### **Evaluation Findings**

The intervention was effective at increasing both needle cleaning and consistent condom use over the time of the study. The proportion of participants who reported consistent use of bleach to clean needles increased significantly from baseline (20 percent) to early implementation (16 percent) to full implementation (29 percent) in the intervention city; but decreased from 22 percent at baseline to 12 percent at early and full implementation in the comparison city. In addition, consistent condom use during vaginal intercourse with occasional partners increased significantly from 2 percent at baseline to 7 percent at early implementation and to 24 percent at full implementation in the intervention city, but decreased from 12 percent to 10 percent in the comparison city. Rates of consistent condom use with steady partners did not change significantly in the intervention city and remained stable (2 percent) in the comparison city. At full implementation, the measure of exposure to the intervention using unprompted recognition reached 32 percent in the intervention city.

### **Comments**

This study demonstrates that a community-based HIV prevention program can have a significant positive effect on consistent needle cleaning and condom use with occasional partners among hard-to-reach injection drug users. Similar interventions may be useful in other communities at risk for HIV infection.

## **Comparison of Education Versus Behavioral Skills Training Interventions in Lowering Sexual HIV-Risk Behavior of Substance-Dependent Adolescents**

St. Lawrence JS, Jefferson KW, Alleyne E, Brasfield TL

*Journal of Consulting and Clinical Psychology* 1995;53(1):154-157

### **Target and Study Populations**

*Target population.* The intervention was developed for substance-dependent adolescents.

*Study population.* The intervention was evaluated with a sample of adolescents receiving drug-abuse treatment at a residential facility in Jackson, Mississippi. Thirty-four adolescents participated in the study. Most (73 percent) were male; 84 percent were white, and 16 percent were African American. The mean age was 15.6 years. Eighty percent of the participants were sexually active, and 15 percent had been treated for a sexually transmitted disease within the previous two months.

### **Objective(s) of Intervention for Risk Behavior**

To decrease the incidence of high-risk sexual behavior.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge about HIV/AIDS and risk behavior.

To produce more favorable attitudes toward HIV/AIDS prevention and condom use.

To increase internal health locus of control.

To increase interpersonal and technical skills necessary to decrease risk behavior.

To increase self-efficacy in the use of interpersonal and technical skills.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction intervention using group-level, non-peer mediated skills training.

This behavioral skills training intervention, based on cognitive-behavioral principles, consisted of six weekly, 90-minute group sessions. Separate sessions were conducted for males and females and were led by group leaders representative of the race and gender of the participants. The first two sessions focused on HIV/AIDS education and training and skill rehearsal in correct condom use. Three sessions provided training in assertive partner negotiation and communication skills related to engaging in sexual activities.

### **Evaluation Methods**

The 34 participants were randomly assigned to behavioral skills training or to receive a standard educational intervention that provided risk-reduction information but no skills training. All participants were tested before and two months after the intervention on HIV/AIDS knowledge and attitudes toward prevention. The AIDS Knowledge Test, the Attitudes Toward HIV Prevention Measure, Health Locus of Control Scale, and the Condom Attitude Scale—Revised were among the tests used. Participants estimated their risk for infection on the basis of their behavior in the previous two months and role played high-risk sexual behavior scenarios. Univariate and chi-square tests were used to analyze differences between the groups following the intervention.

### **Evaluation Findings**

The intervention was effective in decreasing the incidence of high-risk behavior. Compared with participants in the education condition, those who received behavioral skills training reported significantly lower rates of coercion into unwanted sexual activity (15.4 percent versus 5.3 percent), exchanging sex for money (15.4 percent versus 0 percent), exchanging sex for drugs (23.1 percent versus 10.5 percent), and engaging in casual sex (23.1 percent versus 10.5 percent). These self-reported changes were substantiated by the residential treatment program's records on the number of sexually transmitted diseases treated. During the two months following the intervention, six of those in the education-only group required treatment; only one in the behavioral training group required treatment.

The intervention was effective in changing the determinants of risk behavior. Compared with participants in the education condition, those who received behavioral skills training demonstrated significantly increased knowledge about HIV/AIDS, more favorable attitudes toward prevention and condom use, increased self-efficacy, and greater recognition of personal vulnerability. They attached higher value to sexual safety in relationships and were less inhibited about using condoms. Comparable changes were not evident in the adolescents who participated in the education-only groups.

### **Comments**

This intervention demonstrates the value of behavioral skills training in promoting risk-behavior changes in substance-dependent adolescents.

## **Building Skills of Recovering Women Drug Users to Reduce Heterosexual AIDS Transmission**

Schilling RF, El-Bassel N, Schinke SP, Gordon K, Nichols S  
*Public Health Reports* 1991;106(3)297-304

## **15-Month Follow Up of Women Methadone Patients Taught Skills to Reduce Heterosexual HIV Transmission**

El-Bassel N, Schilling RF  
*Public Health Reports* 1992;107(5)500-504

### **Target and Study Populations**

*Target population.* The intervention was designed for women enrolled in methadone treatment.

*Study population.* The intervention was evaluated with a sample of 91 African American and Hispanic women enrolled for at least three months in one of five clinics in a large methadone maintenance program in the Bronx in New York City. The majority of the women were Hispanic (64 percent) or African American (36 percent), between the ages of 21 and 42 and had some high school education. Public assistance and food stamps were the major sources of income.

### **Objective(s) of Intervention for Risk Behavior**

To increase use of condoms.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge about HIV transmission and prevention.

To increase skills in condom use, communication, and negotiation.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction, group-level counseling led by non-peers.

The skills-building intervention consisted of five two-hour group sessions offered simultaneously to groups of 9 or 10 participants. The first two sessions provided information on HIV/AIDS transmission and prevention techniques through video, visual presentations, and didactic group exercises designed to help participants identify their own high-risk sexual behaviors and discuss barriers they encounter in adopting safer sex practices. During the third session, members discussed their negative associations with condoms, practiced condom use skills, and role played negotiation of condom use. During the final two sessions, participants practiced assertiveness, problem solving, and communication skills by participating in scenarios involving safer sex and by role playing scripted scenarios and



scenarios reflecting their own lives. A single-session HIV/AIDS information-only control group received information routinely provided by the clinic. Sessions were led by experienced female drug counselors who had received 20 hours of training.

### **Evaluation Methods**

Participants were tested and randomly assigned to one of two conditions: 48 to the five-session skills-building intervention and 43 to a single-session HIV/AIDS information-only comparison condition. Follow-up data were collected two weeks after completion of the intervention and again at 15 months. The initial and follow-up assessments involved sexual and drug-risk behavior and attitudes, HIV/AIDS knowledge, and locus of control. Several scenarios administered at follow up were designed to measure social skills and assertiveness in implementing safe sex in different high-risk situations. Analysis of variance was the primary statistical method employed.

### **Evaluation Findings**

The intervention was effective at influencing condom use behavior. Those in the skill-building intervention group showed significantly greater levels of condom use than those in the control group at both the two-week and 15-month follow ups.

The intervention was effective at influencing potential determinants of behavior immediately after the intervention. Participants in the skills-building intervention showed significantly high levels of taking condoms from clinics, carrying condoms, feeling comfortable talking about sex, believing that AIDS can be prevented, and believing they could eliminate the risk of exposure to the AIDS virus than those in the comparison group at the two-week follow up. Most of these group differences had deteriorated by the 15-month follow up.

Of 100 eligible women first contacted, 85 agreed to participate. Fifteen were added to bring the initial study sample up to 100. Of these, only 91 completed the baseline, the intervention, and the two-week follow up assessment. At 15 months, 62 study participants remained. Skills-building participants had high rates of group attendance and program retention, especially at two weeks, suggesting that involvement in group interventions could enhance retention rates at methadone maintenance programs.

### **Comments**

The study demonstrates that skill-building, preventive interventions composed of multiple sessions and conducted in treatment settings may have promise as useful HIV prevention strategies for drug-using women. Since many of the changes deteriorated over time, program planners should consider booster sessions or other methods of maintaining changes in risk behavior.

## **Reducing HIV Needle Risk Behaviors Among Injection-Drug Users in the Midwest: An Evaluation of the Efficacy of Standard and Enhanced Interventions**

Siegal HA, Falck RS, Carlson RG, Wang J  
*AIDS Education and Prevention* 1995;7(4):308-319

### **Target and Study Populations**

*Target population.* The intervention was designed for adult HIV seronegative, injection drug users who are not currently in treatment.

*Study population.* The impact of the intervention was evaluated with a sample of injection drug users recruited from Dayton and Columbus, Ohio, a low HIV seroprevalence area. Seven indigenous outreach workers recruited the participants from March 1989 through September 1990 using opportunistic and chain-referral sampling techniques. All participants were over 18. The majority were African American (75 percent), male (74 percent), and high school graduates (65 percent). The participants reported injecting heroin (61 percent), cocaine (77 percent), and speed ball (43 percent) daily, weekly, or occasionally during the previous six months. Of the initial recruits who elected voluntary and confidential HIV counseling and testing, 1.5 percent were confirmed seropositive by Western blotting. Only HIV seronegatives participated in the intervention study.

### **Objective(s) of Intervention for Risk Behavior**

To decrease HIV exposure due to needle-use practices.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge about HIV transmission and prevention.

To improve skills in using condoms and in cleaning needles.

### **Taxonomy Category and Intervention Description**

Two health education/risk reduction interventions on risk reduction for injection drug users, both using non-peer mediated counseling, one individual and one group counseling.

The standard intervention was delivered at a field office and consisted of a one-hour session, during which a counselor-educator reviewed the information in counseling and provided details on HIV disease and modes of transmission. The instructional session was followed by a videotape of role plays illustrating proper condom use and needle cleaning. A risk-reduction kit containing bleach, water, condoms, and brochures was distributed. The enhanced intervention added to the standard intervention three one- to two-hour sessions on the pathology of HIV

disease, drug addiction, and safer sex. These were delivered over a one-month period in group sessions of three to five people. The interventions were theory based. All the participants received voluntary and confidential HIV counseling and testing as well as knowledge of results.

### **Evaluation Methods**

Eligible participants (drug injection in past six months, at least 18 years of age, and not in drug-treatment program in previous 30 days) completed the baseline assessment and were offered voluntary and confidential HIV counseling and testing. Of eligible participants, 98 percent agreed to receive screening, and 95 percent of those screened returned seven to 10 days later to receive results. Before receiving results, all seronegative participants took part in the standard intervention. Participants were assigned in alternation to receive the standard or enhanced intervention. Standard participants were asked to return in six months for follow-up assessment; enhanced intervention participants were asked to return for three additional sessions in the following month and then asked to return for six-month follow-up assessment. For the purposes of this study, risk level for exposure to HIV with respect to needle use was defined as 'safe' if the participant reported always using a new needle, always cleaning needles and syringes with bleach before each use, or not injecting drugs. National standardized instruments were used. The article reports on analyses of the 232 standard participants who completed the six-month follow up and the 149 enhanced participants who completed all three enhanced sessions and the six-month follow up.

### **Evaluation Findings**

Both standard and enhanced interventions appeared to be effective at improving needle practices. The enhanced intervention showed more effectiveness than the standard in helping those using unsafe practices become more safe, but did not appear to be more effective than the standard at helping those using safer needle practices maintain those practices. At the baseline assessment, 28 percent of both standard and enhanced intervention participants reported safe needle practice. At follow up, the proportion engaging in safe practices increased to 66 percent among standard and 73 percent among enhanced intervention participants. Contrary to expectations, there was no statistically significant difference between the two interventions in the degree of improvement overall. When the analysis was limited to the participants who reported unsafe needle practices at baseline, the proportion engaging in safe practices at follow up was 58 percent among the standard and 71 percent among the enhanced. This difference in improvement was statistically significant. The article reports results on the determinants of transition from unsafe to safe needle practices and indicates that daily injectors were less likely to make this transition than non-daily injectors.

It is important to note that 171 of the participants (49 percent) assigned to the enhanced condition returned and completed all three enhanced sessions.

**Comments**

The high return rate for all three sessions as well as its effectiveness at improving needle practices with at least some segments of the population illustrates the potential of this enhanced intervention. Further, the findings show the need to consider differences among injection drug users (daily versus non-daily, reduction versus maintenance) in designing effective interventions to reduce unsafe needle practices.

## **Psychoeducational Group Approach: HIV Risk Reduction in Drug Users**

Sorensen JL, London J, Heizmann C, Gibson DR, Morales ES, Dumontet R,  
Acree M

*AIDS Education and Prevention* 1994;6(2):95-112

### **Target and Study Populations**

*Target population.* The intervention was designed for adult injection drug users in outpatient treatment programs.

*Study population.* The impact of the intervention was evaluated in two outpatient treatment populations: 50 injection drug users participating in a methadone maintenance program and 98 active heroin users participating in 21-day outpatient methadone detoxification. All participants had extensive previous experience in drug treatment programs and were reached through clinics of the Substance Abuse Services at San Francisco General Hospital. The participants were primarily 30 to 49 years of age, mostly unemployed, and almost all heterosexual. The majority were male (65 percent). About half were white, 20 percent were African American, and 20 percent were Hispanic.

### **Objective(s) of Intervention for Risk Behavior**

To decrease shared unsterilized needle use and to increase condom use.

### **Objective(s) of Intervention for Determinants of Risk Behavior**

To increase knowledge of HIV transmission and prevention.

To improve syringe sterilization and condom use skills.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction, group-level, non-peer mediated counseling in a clinic setting.

The two to three sessions, for a total of six hours, included didactic presentation of facts about HIV transmission, group discussions to personalize risk, structured exercises and homework to build skills, and social interactions to increase cohesion and build trust between leaders and participants. The intervention was theory based, and its protocol was standardized in a training manual. The sessions with cohorts of five to eight participants occurred at the clinic during clinic dispensing hours and were held within a one-week period. The sessions were led by a two- to three-person team of two psychologists and one paraprofessional. All participants also received written materials on the connections among alcohol, drugs, sex, and HIV/AIDS; safer sexual practices; perinatal transmission; syringe sterilization; and

condom use. Participants assigned to the comparison group received only the written information.

### **Evaluation Methods**

The intervention was evaluated with two controlled studies; both used random assignment and compared the intervention to information-only comparison participants. Knowledge and attitudes about HIV/AIDS, syringe sterilization and condom use skills, and needle use and sexual practices were assessed at baseline, and at immediate and three-month follow up. Actual skills were assessed with interviewer ratings while participants demonstrated the correct way to clean the syringe with containers of bleach and water and the correct way to use a condom.

### **Evaluation Findings**

Overall, the study provides evidence of the feasibility of conducting group-level counseling interventions with injection drug users in outpatient settings. In addition, the evaluation demonstrates the effectiveness of the intervention in terms of improvements in the determinants of risk behaviors. However, there was no evidence of effectiveness in changing either needle use or sexual risk practices.

With respect to the outpatient methadone maintenance clients, the level of participation was high. That is, most (80 percent) of those who agreed to participate completed at least three hours of the intervention. The article reports on the 47 (94 percent) participants who provided immediate and three-month follow-up interviews. Using repeated measures analyses of variance that compared intervention to comparison participants, the intervention demonstrated a statistically significant impact on factual knowledge about HIV/AIDS, knowledge about sexual risk-reduction practices, drug-related self-efficacy, sex-related self-efficacy, and condom use skills at the immediate follow up. The differences for syringe sterilization skills were in the expected direction but were not statistically significant. Significant impact at the three-month follow up was seen only for the two knowledge items. There was no evidence of impact on behavior; shared needle use and unprotected sexual activity started low at the baseline and remained low.

With respect to the outpatient detoxification clients, the level of participation was moderate. That is, most (65 percent) of those who agreed to participate completed at least three hours of the intervention. The article reports on the 60 (61 percent) participants who provided immediate and three-month follow-up interviews. The intervention demonstrated a statistically significant impact on factual knowledge about HIV/AIDS, knowledge about sexual risk-reduction practices, and actual condom skills at the immediate follow up. Two of these impacts (impact on knowledge about sexual risk-reduction practices and actual condom skills) were also statistically significant at the three-month follow up. Although the main

analyses revealed no statistically significant impact on needle-use practices, sub-analyses that removed distortion due to outliers suggested improvement in needle use.

**Comments**

Effectiveness at influencing behavior was not demonstrated in these studies. However, the level of participation and the effectiveness on determinants suggest that group-level counseling in outpatient settings is an intervention worthy of further exploration.

# Effects of an Intervention Program on AIDS-Related Drug and Needle Behavior Among Intravenous Drug Users

Stephens RC, Feucht TE, Roman SW

*American Journal of Public Health* 1991;81(5):568-571

## Target and Study Populations

*Target and population.* The intervention was designed for injection drug users currently not in treatment.

*Study population.* The intervention was evaluated with a sample of injection drug users who were recruited from February 1988 through August 1989 in Cleveland, Ohio, a low HIV seroprevalence area. The sample was predominately male and African American with a median age of 36. Very few (10 percent) were currently in outpatient treatment. Users who were in some institutional setting or in another intervention program were excluded.

## Objective(s) of Intervention for Risk Behavior

To decrease HIV exposure due to needle-use practices.

## Objective(s) of Intervention for Determinants of Risk Behavior

To improve skills in using condoms and in cleaning needles.

## Taxonomy Category and Intervention Description

Health education/risk reduction intervention, using individual-level counseling with non-peer counselors.

The intervention was delivered one-on-one by a professionally trained health educator and lasted from 45 to 60 minutes. The session provided basic information about HIV transmission using a segment from a film; discussed sexual risk reduction and condom use; covered ways to reduce risk due to injection drug use (cleaning with bleach, not using drugs, not using drugs intravenously, not sharing needles or works); and ended with information on HIV testing. All participants received a kit of materials including bleach, condoms, and brochures about HIV/AIDS.

## Evaluation Methods

Interviews were conducted immediately before the intervention session and from three to five months after the intervention. Results on change over time for the 322 (80 percent) participants who provided both baseline and follow-up information are reported in this article. Needle-risk behavior in the two months preceding the interview was assessed two ways: five dichotomous measures of sharing works, sharing cookers, using drugs intravenously, using others' works and cleaning works



with bleach and two measures of the frequency of sharing others' works and cleaning with bleach.

### **Evaluation Findings**

Results comparing baseline to follow-up interviews indicated statistically significant decreases in needle risk behaviors over time. Although these results suggest the potential effectiveness of the intervention, the data reported in this article make it difficult to determine the extent to which these differences are due to the intervention. The article comments on other analyses available by request.

### **Comments**

The favorable findings are worthy of further exploration, given the special needs of this population.

## **Syringe and Needle Exchange as HIV Prevention for Injection Drug Users**

Watters JK, Estillo MJ, Clark GL, Lorvick J  
JAMA 1994;271(2):115-120

### **Target and Study Populations**

*Target population.* The intervention was designed for injection drug users (IDUs) who are at risk for HIV infection from sharing contaminated needles and syringes.

*Study population.* The study was conducted with 752 IDUs from San Francisco from Fall 1991 through Spring 1992. Clients were most often between the ages of 31-40 (49 percent), male (69 percent), African American (56 percent) or Caucasian (30 percent), and been through some kind of drug treatment in the last five years (53 percent).

### **Objective of Intervention for Risk Behavior**

To decrease syringe sharing among IDUs.

### **Objective of Intervention for Determinants of Risk Behavior**

To increase IDUs access to sterile injection equipment.

### **Taxonomy Category and Intervention Description**

Health education/risk reduction using street and community outreach to active IDUs.

This volunteer-based syringe exchange program operated in the evenings (6 to 8 p.m.) and had mobile teams assigned to street corners in neighborhoods with high drug use and homelessness. Although illegal, the intervention operated without major disruption from police and with tacit approval of two successive mayoral administrations. Program volunteers provided a one-for-one exchange in which a sterile, single-use insulin syringe was exchanged for each syringe deposited in a biohazardous waste container by the client. Limits on the number of syringes program clients were permitted to exchange changed during the course of the study. By the end of the study there were no limits on numbers of syringes exchanged. Volunteers also distributed 1-oz (80-mL) bottles of bleach, condoms, cotton and alcohol wipes and provided referrals to drug treatment, HIV testing and counseling, and other social and medical services on request.

### **Evaluation Methods**

Data for the study came from two sources. Program records on client contacts and exchange of syringes were maintained during the study (1991-1992) and from when the program was first implemented (1988). In addition, data were derived from the

Urban Health Study, a semiannual survey of IDUs recruited in natural settings in three inner-city communities in San Francisco where the intervention was located.

After obtaining informed consent, Urban Health Study participants were interviewed with a standard questionnaire dealing with AIDS knowledge, medical, drug use, and sexual histories, and knowledge of HIV/AIDS risk behaviors. Respondents were paid for their participation and given pre- and post-test counseling, and given referrals to medical and social services by trained staff. The intervention study used data from 11 semiannual cross-sectional surveys collected as part of the Urban Health Study between December 1986 and June 1992 (n=6216). Specific items used from the survey included demographic data as well as respondents reported visits to syringe exchange and their source of syringes. Items on the negative impacts of syringe exchange included changes in self-reported frequency of injection over time, changes in the age distribution of the cross sections, and proportion of respondents reporting first injection during the previous year. Syringe exchange was examined by assessing the relationship between reported syringe exchange use in the past year and reported needle sharing based on self-reported number of needle-sharing partners in the 30 days prior to interview.

One-way analysis of variance (ANOVA) with Scheffe's test for multiple comparisons was used to identify differences in the mean number of syringes exchanged and the reported frequency of injection over successive cross sections. Differences in the proportion of IDUs who used the syringe exchange more than 25 times in the past year and proportion of new injectors over time were assessed using the Mantel-Haenszel  $\chi^2$  test for trend.

### **Evaluation Findings**

At the end of the study, 45 percent of the participants reported "usually" obtaining injection equipment from the syringe exchange, and 61 percent reported using the program within the past year. During the six years before the study ended, the median reported frequency of injection declined from 1.9 injections per day to 0.7, the mean age increased from 36 to 42 years, and the percentage of new initiates into injection drug use decreased from 3 percent to 1 percent. Six independent factors were found to be associated with syringe sharing. Protection from syringe sharing was associated with the use of syringe exchange, having received HIV testing and counseling, condom use, older age, and African American race. Injection of cocaine was a predictor for syringe sharing. The strength of association between use of the syringe exchange program and not sharing syringes was greatest in injection drug users younger than the median age of 40 years.

**Comments**

The results of the evaluation suggested that, when available, syringe exchange programs are used by IDUs. In addition, reduction in syringe sharing among IDUs was associated with use of syringe exchange programs and voluntary HIV testing and counseling. Results do not support the belief that syringe exchange programs stimulate increased drug abuse in terms of frequency of injection or recruitment of new and/or younger users.

# **B** SUMMARIES OF RESOURCES THAT ADDRESS BEHAVIORAL THEORIES AND RESEARCH ON HIV PREVENTION INTERVENTIONS WITH DRUG USERS

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Each resource listed in Appendix B reviews and comments on aspects of HIV prevention interventions which will help prevention planners and program managers in considering program activities. The contents of this appendix provides the following information:

- *Brief summaries of selected books, monographs, book chapters, and articles on effectiveness literature*
- *Content highlights*
- *A bibliography*

## **Summaries of Resources that Address Behavioral Theories and Research on HIV Prevention Interventions with Drug Users**

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Appendix B presents summaries of selected books, monographs, chapters of books, and articles. The books, chapters of books, and monographs describe various types of HIV prevention interventions, explore the determinants of behavior, and outline special cultural issues and factors of particular relevance to different groups defined by race/ethnicity, gender, age, and sexual orientation. We selected these materials to expand on and enhance the information that is presented in the Evaluation Summary Forms in Appendix A. For each resource, we provide a summary page that contains an abstract and highlights of the key areas on which the authors focused.

Prevention planners and program managers can review these summaries to determine if a resource has information relevant to their particular planning needs. They can also look for information on target population, type of intervention, and research on effectiveness.

The following summaries are adapted from book jackets, promotional descriptions, and the National Library of Medicine's (NLM) MEDLINE/AIDSLINE article abstracts. In cases where an abstract is unavailable, they are drawn from opening paragraphs in the articles themselves.

## **The Context of HIV Risk Among Drug Users and Their Sexual Partners**

Battjes RJ, Sloboda Z, Grace WC, editors

National Institute on Drug Abuse Research Monograph Series 143. Rockville (MD): National Institutes of Health; 1994. Available from: National Institute on Drug Abuse, NIH Publication No. 94-3750.

This monograph is based on papers that were presented at a technical review meeting on “The Context of HIV Risk Among Drug Users and Their Sexual Partners” held on April 22-23, 1993. The meeting’s purpose was to review research on drug use and sexual behaviors of drug users associated with HIV transmission, and develop a research agenda for future directions. The meeting was convened by NIDA and was the result of an earlier NIDA-sponsored meeting that was held in January 1992.

### **Highlights:**

#### **Overview**

A Contextual Perspective on HIV Risk

*Battjes RJ, Sloboda Z, Grace WC*

#### **Heterosexual Males**

HIV Risk Behaviors of Heterosexual Male Drug Users

*Needle RH*

Injection and Sexual Risk Behaviors of Male Heterosexual Injecting Drug Users

*Stephens RC, Alemagno SA*

HIV/AIDS Risks Among Male, Heterosexual Non-injecting Drug Users

Who Exchange Crack for Sex

*Inciardi JA*

#### **Women**

Context of HIV Risk Behavior Among Female Injecting Drug Users and Female Sexual Partners of Injecting Drug Users

*Hartel D*

Female Drug Abusers and the Context of Their HIV Transmission Behaviors

*Allen K*

Factors Associated with Sexual Risk of AIDS in Women  
*O'Leary A*

### **Men Who Have Sex With Men**

Drug Use and HIV Risk Among Gay and Bisexual Men: An Overview  
*Battjes RJ*

Substance Use and HIV-Transmitting Behaviors Among Gay and Bisexual Men  
*Ostrow DG*

Drug Use and HIV Risk Among Male Sex Workers:  
Results of Two Samples in San Francisco  
*Waldorf D*

### **Adolescents**

HIV Risk in Drug-Using Adolescents  
*Smeriglio VL*

HIV Risk in Adolescents: The Role of Sexual Activity and  
Substance Use Behaviors  
*Boyer CB, Ellen, JM*

Going Nowhere Fast: Methamphetamine Use and HIV Infection *Rotherum-Borus  
MJ, Luna GC, Marotta T, Kelly H*

### **Measurement Issues**

The Context of Risk: Methodological Issues  
*Sloboda Z*

Bringing the Context in From the Cold: Substantive, Technical, and Statistical  
Issues for AIDS Research in the Second Decade  
*Brunswick AF*

The Context of Risk: Ethnographic Contributions to the Study of Drug Use and HIV  
*Koester SK*

Assessing the Reliability and Validity of Self-Reported Risk Behavior,  
*Gibson DR, Young M*

Future Directions for Studies on the Context of HIV Risk  
*Grace WC, Battjes RJ, Sloboda Z*



## **Social Networks, Drug Abuse, and HIV Transmission**

Needle RH, Coyle SL, Genser SG, Trotter RT, editors

National Institute on Drug Abuse Research Monograph Series 151. Rockville (MD). National Institutes of Health; 1995. Available from: National Institute on Drug Abuse, NIH Publication No. 95-3889.

This monograph is based on papers that were presented at a technical review meeting on “Social Networks, Drug Abuse and HIV Transmission” held on August 19-20, 1993. The NIDA-sponsored meeting examined the “social network research paradigm and its application to the study of drug use and HIV transmission.” The studies reviewed focused on drug abuse and its relationship to HIV transmission within the context of a variety of networks (e.g., drug injectors, sex workers, siblings and other relatives, and sexual partners). Four main conclusions were drawn from the data: 1) network characteristics affect behavioral practices as well as the chance of HIV infection; 2) migration and transient groups affect the incidence of viral transmission of other network groups; 3) the adoption of individual risk behaviors is affected by network membership characteristics and network norms; and 4) “network-oriented interventions aimed at diffusing information about HIV and at changing transactional patterns have been successful at introducing behavioral change among network members, reducing high-risk behaviors, accelerating readiness for treatment, and limiting the spread of HIV.”

### **Highlights:**

Introduction: the Social Network Research Paradigm

*Needle RH, Coyle SL, Genser SG, Trotter RT*

Social Networks in Disease Transmission: the Colorado Springs Study

*Rothenberg RB, Woodhouse DE, Potterat JJ, Muth SQ, Darrow WW, Klovdahl AS*

Using Dyadic Data for a Network Analysis of HIV Infection and Risk Behaviors Among Injecting Drug Users

*Neaigus A, Friedman SR, Goldstein M, Ildenfonso G, Curtis R, Jose B*

Injecting Drug Use, Characteristics of Significant Others, and HIV Risk Behaviors

*Price RK, Cottler LB, Mager D, Murray KS*

Sibling Homophily in HIV Infection: Biopsychosocial Linkages in an Urban African American Sample

*Brunswick AF, Messeri PA, Dobkin J, Flood MT, Yang A*

Focal Networks and HIV Risk Among African American  
Male Intravenous Drug Users

*Frey FW, Abrutyn E, Metzger DS, Woody GE, O'Brien CP, Trusiani P*

A Comparison of Drug Use Networks Across Three Cities

*Williams ML, Zhuo Z, Siegal HA, Robles RR, Trotter RT, Jones A*

Ethical and Legal Issues in Social Network Research: the Real and the Ideal

*Woodhouse DE, Potterat JJ, Rothenberg RB, Darrow WW, Klov Dahl AS, Muth SQ*

Network Models for HIV Outreach and Prevention Programs for Drug Users

*Trotter RT, Bowen AM, Potter JM*

A Personal Network Approach to AIDS Prevention: an Experimental Peer  
Group Intervention for Street-Injecting Drug Users: the SAFE Study

*Latkin CA*

Promising Social Network Research Results and Suggestions for a Research Agenda

*Friedman SR*

## **Preventing AIDS in Drug Users and Their Sexual Partners**

Sorensen JL, Wermuth LA, Gibson DR, Choi KH, Guydish JR, Batki SL  
New York: Guilford Press; 1991

The book presents the results of several San Francisco experiments aimed at preventing AIDS among drug users and their sex partners. The authors present research findings that support the proposition that targeted AIDS prevention efforts can be effective. Although the bulk of the work presented occurred in San Francisco, the findings are placed in the context of extensive investigations of other research groups, clinicians, and national and international experts about public policy. The book discusses AIDS, drug use, sexual behaviors, and theories of change. This is followed by chapters that suggest how to prevent AIDS by action with drug users and their sexual partners. The final part of the book makes concluding recommendations about disseminating prevention programs and forming effective policies.

### **Highlights:**

#### **AIDS and Drug Use**

Introduction: the AIDS-drug Connection *Sorensen JL*

Cases: Implications for AIDS Prevention *Wermuth LA*

Needle Sharing, Needle Cleaning, and Risk Behavior Change Among  
Injection Drug Users *Guydish JR, Golden E, Hembry K*

Unsafe Sex and Behavior Change *Shoi KH, Wermuth LA*

Theoretical Background *Gibson DR, Catania JA, Peterson JL*

#### **Preventive Interventions with Drug Users and Their Sexual Partners**

Drug Abuse Treatment for HIV-infected Patients *Batki SL, London J*

Group Counseling to Prevent AIDS *Sorensen JL, London J, Morales ES*

Individual Counseling *Gibson DR, Lovell-Drache J*

Reaching and Counseling Women Sexual Partners *Wermuth LA, Robbins  
RL, Choi KH, Eversley R*

#### **Social Implications**

Adopting Effective Interventions *Sorensen JL, Guydish JR*

Policy Implications *Wermuth LA, Sorensen JL, Franks P*

## **Harm Reduction: A Public Health Response to the AIDS Epidemic Among Injecting Drug Users**

Des Jarlais DC, Friedman SR, Ward TP

*Annual Review of Public Health* 1993;14:413-450.

This article presents an overview of the harm reduction approach to HIV prevention among injecting drug users (IDUs). It begins with a discussion of the epidemiology of HIV infection among IDUs, outlining the importance of preventing infection in drug-using populations. The authors then summarize what is understood under the harm reduction perspective, i.e., that problems associated with psychoactive drug use are not direct results of drug use as such, but rather drug use behavior, and therefore HIV prevention efforts must focus on specific behaviors that put drug users at risk for HIV. In this perspective, there is no single best solution to preventing HIV infection among drug users; drug users are seen as capable of making rational choices regarding their HIV risk behaviors, and importance is placed on overcoming the marginalization of drug users by society. Several types of HIV prevention programs and approaches for IDUs that may be part of a harm reduction strategy are described, including syringe exchanges; over-the-counter availability of sterile injection equipment; drug abuse treatment, outreach, and bleach distribution programs; HIV counseling and testing; and the formation of drug users' organizations aimed at promoting risk reduction strategies from within drug-using populations. Pragmatic concerns related to the harm reduction approach are discussed, such as questions about whether and how behavior change can be maintained over time, and what role sexual risk behaviors play. Finally, philosophic concerns related to this approach are presented, including whether or not the harm reduction perspective appears to condone illicit drug use.

### **Highlights:**

Early Epidemiology of HIV Infection Among IDUs  
Heterosexual and Perinatal Transmission from IDUs  
Rapid Transmission of HIV Among IDUs  
Non-AIDS Illnesses Associated with HIV Among IDUs  
Spread of HIV Among IDUs in Developing Countries  
Summary of Epidemiology  
The Harm Reduction Perspective on Prevention of HIV Infection Among IDUs  
HIV Prevention Programs for IDUs  
How Much Prevention is Needed for Success?  
Harm Reduction and HIV Prevention: Pragmatic Concerns  
Harm Reduction and HIV Prevention: Philosophic Concerns

## **HIV/AIDS Prevention For Injecting Drug Users**

Des Jarlais DC

New York: Beth Israel Medical Center; 1995 June

This document discusses the results of major intervention studies (mainly, the NADR/ATOM project), theories of social and behavioral change, and the legal/political system related to HIV/AIDS prevention among the injection drug users. The application of social and behavioral theories of change to HIV/AIDS prevention strategies is discussed.

### **Highlights:**

The Evolution of AIDS Prevention for Reducing HIV Transmission Among IDU

Theories of HIV Prevention Programming

Using Psychological Theories of Health-Related Behavior

Social Change Theories of HIV Risk Reduction Among Injecting Drug Users

Providing Means for Behavior Change

Absence of Harmful Effects of Providing Means for Safer Injection

Effectiveness: HIV Incidence in Outreach/Bleach Distribution Projects

The Effectiveness of Bleach as a Disinfectant for Drug Injection Equipment

HIV Incidence and Syringe Exchange

Integrating Multiple Prevention Programs

Current Problematic Issues in Preventing HIV Infection Among Injecting Drug

Users in the United States

## **Social Intervention Against AIDS Among Injecting Drug Users**

Friedman SR, Neaigus A, Des Jarlais DC, Sotheran JL, Woods J, Sufian M, Stepherson B, Sterk C

*British Journal of Addiction* 1992; 87(3):393-404.

Many drug injectors continue to engage in behaviors that lead them to become infected with HIV in spite of a wide variety of public health programs. In addition, many persons have begun to inject drugs in spite of knowing the risks of AIDS. The authors argue that the inadequacy of current efforts to prevent these behaviors suggests that social interventions be tried to complement current programs (almost all of which have an individual focus). Evidence that social factors such as peer pressure and the social relations of race affect risk behavior is presented. Social interventions discussed include organizing drug injectors against AIDS in ways analogous to those in which gays organized against the epidemic, and finding ways to change large-scale social relationships that predispose people to inject drugs.

### **Highlights:**

#### **The State of the Art—and the Need for Improvement**

- Peer effects on risk and risk reduction

- Heterogeneity of drug injection scenes

- Race/ethnicity, risk and risk reduction

#### **Collective Action Against AIDS**

#### **Changing the Social Structure**

## **Assessing the Social and Behavioral Science Base for HIV/AIDS Prevention and Intervention: Workshop Summary and Background Papers**

Institute of Medicine, National Academy of Sciences  
Washington (DC): National Academy Press; 1995.

In June 1995, the Institute of Medicine (IOM), with support from the Office of AIDS Research at the National Institutes of Health, convened a workshop committee to consider the contributions of the social and behavioral sciences to AIDS prevention, assess the current understanding of the epidemic, draw new insights to help guide further research on the complex issues associated with the epidemic, and identify important research questions and relevant methodologies needed for the future. This report summarizes the presentations and discussions of the workshop with reference to key insights from the commissioned background and response papers. The workshop extended the review of preventive interventions targeted at individual behavior change found in the 1994 IOM report, *AIDS and Behavior: An Integrated Approach*. Focused on more social-level analyses, this summary and the accompanying background papers are useful companion documents to the earlier IOM report.

### **Highlights:**

#### **Workshop Topics**

- Understanding the epidemic
- Learning from lives: individuals within a social context
- Understanding high-risk communities
- Making a difference: controlling the epidemic through social intervention
- Evaluating results

#### **Background Papers**

HIV/AIDS Prevention: Models of Individual Behavior in Social and Cultural Contexts *Ewart CK*

Response: What do People Need to Know About AIDS? *Fischhoff, B*

Response: Cognitive Psychology, Social Networks, and AIDS

*Heckathron DD*

Social Science Intervention Models for Reducing HIV Transmission

*Friedman SR, Yypijewska C*

Response to Social Science Intervention Models for Reducing HIV

Transmission *Connors MM*

On the Concept of Community *Laumann EO*

Community Disintegration and Public Health: A Case Study of New York City *Fullilove RE*

Response: Societal Instability Perspective: Relevance to HIV/AIDS Prevention *Turshen M*

Communication Campaigns for HIV Prevention: Using Mass Media in the Next Decade *Flora JA, Maiback EW, Holtgrave D*



## **Mexican American Intravenous Drug Users' Needle-Sharing Practices: Implications for AIDS Prevention**

Mata AG, Jorquez JS

In: May VM, Albee GW, Schneider SF, editors. *Primary prevention of AIDS: psychological approaches*. Newbury Park CA: Sage Publications; 1989.

This chapter discusses intravenous drug use and needle-sharing practices among Mexican Americans, potential influences promoting and/or deterring these behaviors, and how these behaviors have been affected by the HIV epidemic. It begins with a historical review of substance abuse among Mexican Americans and describes socioeconomic and cultural factors that affect prevention efforts among ethnic minorities. It then concludes with recommendations for the development of prevention programs among Mexican American drug users and suggests ways in which to involve their social networks (i.e., sexual partners, families and children) in these prevention efforts.

### **Highlights:**

Background and Historical Context

The Problem in Perspective

Methodology

IV Drug Use in the Barrio

Recommendations

- Prevention efforts

- Active IV drug users in treatment

- Active IV drug users out of treatment

- Sexual partners, families, and children

## **Preventing HIV Transmission: The Role of Sterile Needles and Bleach**

Normand J, Vlahov D, Moses LE, editors

National Research Council, Institute of Medicine. Washington (DC): National Academy Press; 1995.

This book is the result of a legislative directive (July 1992 ADAMHA Reorganization ACT) that requested the National Research Council (NRC) and the Institute of Medicine (IOM) to conduct a study to determine the effectiveness of needle exchange and bleach distribution programs. A panel was created and relevant research was gathered and analyzed. Described in this book is research relevant to the effects of such programs on drug use rates, IDU behaviors, and the spread of AIDS and hepatitis among IDUs and their sexual partners. Also discussed are characteristics associated with effective programs, and recommendations for future research and evaluation methods applicable to the evaluation of such programs.

### **Highlights:**

#### **Dimensions of the Problem**

- The epidemiology of HIV/AIDS
- The epidemiology of injection drug use
- Needle exchange and bleach distribution programs in the United States
- Community views
- The legal environment

#### **The Impact of Needle Exchange and Bleach Distribution Programs**

- The effectiveness of bleach as a disinfectant of injection drug equipment
- The effects of needle exchange programs
- Directions for future research

#### **Description and Review of Research Projects in Three Cities (Appendix)**

- San Francisco
- Montreal
- Chicago

## **Interventions for Sexual Partners of HIV-Infected or High-Risk Individuals**

Padian NS, Wijgert J, O'Brien TR

In: DiClemente RJ, Petterson JL, editors. *Preventing AIDS: theories and methods of behavioral interventions*. New York: Plenum Press; 1994.

In this chapter the authors assess partner notification and HIV antibody testing and counseling programs. They describe in detail the design and results of a couple-counseling protocol from the California Partner Study and discuss the complexities of identifying partners of HIV infected and high risk individuals, and the effects of HIV antibody testing, counseling, and AIDS education on behavior change. The chapter concludes with a discussion of the limitations and strengths (i.e., external and internal validity, and subject recruitment and attrition) of all of these approaches.

### **Highlights:**

#### **Review of Relevant Interventions**

- Partner notification
- Success in identifying partners
- Confidentiality

#### **The Effect of HIV Antibody Testing, Counseling, and AIDS Education on Behavior Change**

#### **Couple Counseling in the California Partner Study**

- Nature of the intervention
- Effects of the intervention

#### **Limitations of Interventions**

- External validity
- Subject recruitment and attrition
- Internal validity

#### **Conclusions**

## **HIV/AIDS Prevention for Drug Users in Natural Settings**

Watters JK, Guydish J

In: DiClemente RJ, Peterson JL, editors. *Preventing AIDS: theories and methods of behavioral interventions*. New York: Plenum Press; 1994.

In this chapter, the authors discuss HIV prevention interventions that have targeted IDUs in natural settings (mostly outreach programs). First they present the historical background of strategies used in traditional drug treatment programs and their limitations for HIV prevention. The authors address benefits and challenges of developing and evaluating HIV prevention programs among drug users in natural settings by describing various research and evaluation methodologies.

### **Highlights:**

**Major Approaches to Drug Abuse Treatment and Prevention**

**Limitations of Drug Treatment as an HIV Prevention Strategy**

**Prevention Efforts in Natural Settings**

Community health outreach

Syringe and needle exchange

**Challenges in Evaluating Programs in Natural Settings**

## **Drug-Using Women and HIV: Risk-Reduction and Prevention Issues**

Weissman G, Brown V

In: O'Leary A, Jemmott LS, editors. *Women at risk: issues in the primary prevention of AIDS*. New York: Plenum Publishing Corporation; 1995.

This chapter discusses the educational, cultural, socioeconomic, psychological, and physical barriers drug-using women encounter, describes some of the approaches to overcome them, and provides strategies to develop successful prevention and risk-reduction programs for drug-using women. The results of three major studies (the National AIDS Demonstration Research (NADR) program, the Nontraditional Supports for Drug Using Women project, and the Women Helping to Empower and Enhance Lives (WHEEL) project) are discussed in depth, along with tools used to assess psychological status and risk-behaviors.

### **Highlights:**

#### **Risk-reduction Issues**

- New studies
- Addiction
- The sex-drug connection: multiplication of risk
- Special features of crack use
- History of sexual/physical abuse
- Dual diagnosis/depression
- Lack of social supports
- Counseling, testing, and partner-notification issues

#### **Outreach Issues**

- Successful models of preventive intervention
- Role of drug treatment programs in HIV prevention
- Role of needle exchange programs

# **C** **GLOSSARY**

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Appendix C provides definitions for terms and acronyms used in this document. Terms in quotation marks are slang or street terms.

<b>Abstinence</b>	Going without, fasting. Abstinence-based approaches to drug treatment stress the complete cessation of drug use.
<b>Acquired immunodeficiency syndrome (AIDS)</b>	The most serious form and final stage of HIV infection. AIDS is a severe collapse of the body's natural ability to fight off infection, and usually results in death. Most people infected with HIV develop AIDS within ten years. Since January 1993, all states and territories have been required to use the expanded AIDS surveillance case definition of the Centers for Disease Control and Prevention (CDC) for reporting AIDS cases. The expanded CDC case definition can be found in the CDC MMWR Morbidity and Mortality Weekly Report 1992 Dec 18;41(RR-17):1-19.
<b>"Backloading"</b>	A process by which a drug solution is transferred from one syringe to another. The plunger is removed from the syringe into which the drug will be transferred and the drug mixture is then squirted into the back of the syringe. "Backloading" can be an indirect transmission route for HIV if the syringe or the drug solution is contaminated with HIV-infected blood.
<b>"Booting"</b>	A technique used by drug users to ensure that all of the drug in the syringe is injected. The user injects the drug into a vein, then pulls the plunger back several times, drawing blood into the syringe each time. The drug solution is then injected into the vein again. "Booting" results in a higher volume of residual blood in the syringe.
<b>CDC</b>	Centers for Disease Control and Prevention.
<b>CEWG</b>	The Community Epidemiology Work Group.
<b>Chronic</b>	A condition, such as drug dependence, for which there is no cure.

<b>Closed networks</b>	A network of individuals in which drug use takes place in private residences mainly among people who know each other. Members usually stay within social, cultural, economic, or geographic boundaries.
<b>Confidentiality regulations</b>	Federal, state, or local laws designed to protect the privacy of those receiving treatment for drug abuse, HIV, STDs, and general medical or mental health problems.
<b>“Cooker”</b>	A spoon or bottle top in which heroin powder is mixed with water and sometimes heated before injection.
<b>“Cotton”</b>	A piece of cotton or cigarette filter through which a drug solution is drawn. It removes undissolved particles that might clog a needle.
<b>Crack</b>	A relatively inexpensive, smokable, form of cocaine.
<b>“Crack houses”</b>	Places where crack users gather to purchase and smoke crack, exchange sex for crack or money to buy crack, or provide crack in exchange for sex. Depending on the geographic region, they are also known as “hit houses,” “smoke houses,” and “resorts.”
<b>Detoxification</b>	A medically supervised program in which drug users are weaned from their physical dependence on drugs. Most detoxification programs are run on an inpatient basis. Detoxification is also referred to as “detox.”
<b>Direct sharing of syringes</b>	This occurs when a person uses a syringe to inject a drug and then passes the syringe to another person, who in turn, uses it to inject drugs. This is an important potential transmission route for HIV.



<b>“Drug sick”</b>	A term describing the severe gastrointestinal distress, muscle cramping, and other flu-like symptoms associated with heroin withdrawal.
<b>DTC</b>	Drug treatment center.
<b>“Frontloading”</b>	A process in which the drug solution is transferred from one syringe to another. The needle on the syringe receiving the solution is removed and the drug solution is squirted into the syringe’s hub or barrel. This is now relatively uncommon because most insulin syringes do not have removable needles. “Frontloading” can be an indirect transmission route for HIV if the syringe or drug solution is contaminated with HIV-infected blood.
<b>Harm reduction strategies</b>	An intervention approach that focuses on IDUs and their behaviors related to sharing injection equipment. Harm reduction acknowledges that drug users vary in their readiness and ability to abstain from drug use totally. This approach suggests that, based on the ways in which HIV is transmitted, some ways of engaging in drug use may be less prone to viral transmission than are others. Advocates of harm reduction propose multiple complementary solutions that operate simultaneously (e.g., drug abuse treatment, non injection of drugs, and providing sterile injection equipment and/or materials to disinfect used equipment). These strategies also are known as risk reduction strategies.
<b>Human immunodeficiency virus (HIV)</b>	The retrovirus isolated and recognized as the agent that causes AIDS. Over time, HIV leads to the collapse of the body’s immune system and onset of AIDS infections and conditions.
<b>IDU</b>	Injection drug user.

<b>Indirect sharing of syringes</b>	The process of preparing drugs for injection and dividing the portion among several users. One syringe may be used to prepare the drugs, although the syringe is not necessarily used by all the users to actually inject the drugs. HIV may be transmitted through this process through contamination of the syringe, the rinsing water, or the cotton.
<b>Methadone</b>	A synthetic opiate used to limit discomforts associated with heroin withdrawal.
<b>“Mission”</b>	A three-to-four day crack binge during which the user often does not sleep or eat.
<b>MSM</b>	Men who have sex with men.
<b>NAS</b>	National Academy of Sciences.
<b>NIDA</b>	National Institute on Drug Abuse, one of the agencies within the National Institutes of Health.
<b>“Nodding”</b>	A term referring to the sleepiness associated with a heroin high.
<b>NRC</b>	National Research Council, an organization of the National Academy of Sciences.
<b>Open networks</b>	A network of drug users that is fairly relaxed in terms of its membership. Members may come from a variety of social, cultural, or geographic circles.
<b>Opiates</b>	One of the major categories of drugs; results in physical and psychological dependence. Heroin is a prominent example.
<b>Polydrug use</b>	Use of more than one drug over a period of time or at any one specific time.

<b>“Registering”</b>	A technique for verifying whether a needle is in a vein. Once the needle is inserted, the user pulls back the syringe plunger before injecting the drug. If blood can be pulled into the syringe, it verifies that the point of the needle is in a vein.
<b>Relapse</b>	A return to drug use after a period of quitting.
<b>“Rocks”</b>	Small pieces of crack cocaine.
<b>“Runner”</b>	A person who purchases drugs for a group of users. Runners can be direct or indirect links for the transmission of HIV through their drug use or sexual behaviors.
<b>“Set of works”</b>	The equipment used to prepare and inject drugs.
<b>“Shooting gallery”</b>	A commercial establishment in which individuals gather to inject drugs or buy drugs; often situated in back rooms, basements, dark hallways, or abandoned buildings. Also known as “safe houses” or “get-off houses.”
<b>“Skin popping”</b>	A drug use technique that involves injecting a drug under the skin rather than directly into a vein.
<b>“Snorting”</b>	Injecting a drug by inhaling it; also called “sniffing.”
<b>Social networks</b>	Groups of people linked by various types of relationships and common bonds.
<b>“Speedball”</b>	A injectable combination of heroin and cocaine.
<b>Stimulants</b>	One of the major categories of drugs; results in physical and psychological dependence. Cocaine, crack, and amphetamines are prominent examples.
<b>Tolerance</b>	A physical state that develops when an increasing amount of a drug is needed to achieve the same

desired effect, or when a markedly reduced effects occurs from the continued used of the same amount of a drug.

**Triggers**

Situations, locations, or objects that prompt a desire to return to drug use once a person has stopped.

**“Tweaking”**

A term referring to the facial or body twitching that can occur during a crack high.

**Webs**

A smaller group of people within a larger social network.

**Withdrawal**

Signs and symptoms typically experienced when a person stops using a drug on which he or she is physically dependent. Withdrawal symptoms can range from unpleasant to life-threatening, and include irritability, shakiness, and nausea.

# **D**

## **BIBLIOGRAPHY**

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Appendix D provides a bibliography listing all references used in developing the *HPDU Resource Book*. Information on how to acquire these and other materials and information can be found in PART 5: RESOURCES.

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# **E** *HPDU Resource Book Consultant Panel*

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